# NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VIII. BOSTON, JUNE, 1856. NO. 6.

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## JUNE, AND ITS WORK.

JUNE, perhaps, of all the months in which vegetation is growing and is to be tended, calls for more care and nice attention than any other month. The main crops have been planted, the seeds have sprung into a new existence, and presented their tender stems and leaves to the eye of the cultivator, while their roots have struck below in search of moisture, and gathered a firm hold to sustain the plant in place. These evidences of life and progress gratify the hope in which the seeds were cast into the ground, and cheer the farmer in his labors.

In June, all the hoed crops require constant attention, and their treatment during this month will decide whether they are to be materially benefited, or not, by atmospheric influences. A plant, as an animal, to grow fast and well, must be healthy—and that health will depend upon the circumstances under which it is placed. If in a lean, compact, close soil, its growth will be slow, it will be more or less moss-covered, and look shrivelled and old, even in June. But if it stands in a warm, generous soil, light, finely-pulverized, and porous, so as to admit air and heat, then it will stretch away in a cheerful and vigorous growth, and come to maturity in season. Plants show this difference according to the treatment they receive; but that they may assume the latter form, the soil should be rich, and then the cultivator and hoe kept in frequent use, especially during the month of June. Plants may derive important aid from the atmosphere; but in order to avail themselves of this, they must be vigorous and in health. During all their growth they require large portions of carbonic acid, and if small, hard and weak, they are not in a condition to receive it, though it ever floats about them, waiting to be pressed into their service. It is the food of plants and of the whole vegetable world; they absorb it into their systems, and whilst they retain the carbon, they emit the oxygen, and so feeding themselves, they purify our atmosphere. The atmosphere, also, is continually charged with vapor, which, as the earth becomes cooled at night, is condensed upon it, and if the soil be fine and porous, is taken up by it and appropriated by the roots of the plants.

There are many ways in which plants derive direct and immediate benefits from the atmosphere, provided the farmer has done his part to place them in a condition to receive it. After plowing, manuring, and planting, therefore, he can scarcely be more unwise than to fail to give them careful and attentive cultivation. So far as *his* agency is concerned, he must see that they have light, heat, moisture, and a seed bed in which their roots may traverse freely, and lay hold of the humus, or particles of mould. He can furnish them with *light*, by a proper arrangement of rows—with *heat*, by an open, loose soil, and with *moisture*, by proper drainage, and stimulating manures.

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CUCUMBER, (*Cucumis.*)—The cucumber is a cold, watery and indigestible fruit, yet more universally admired, probably, than any garden esculent in common use.

On analysis it has been found to contain in 600 parts not less than 582.80 of water—the remaining 17.20 consisting of thirteen different ingredients, in various proportions, the principal of which are a fungous substance, nearly resembling the substance

of the mushroom, and a saccharine matter which communicates to the fruit its peculiar flavor.

To fruit well, the plant requires rather a warm, light soil, and it is not necessary that it should be very rich. It spreads rapidly, taking root as it runs, so that thin planting is the best.

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*For the New England Farmer.*

## THE CARROT.

The following paper on the *Cultivation of the Carrot*, has been translated from the French for the *N. E. Farmer*, by an intelligent and earnest friend of agriculture. It is a sketch of Flemish agriculture, originally published by the "Society for the Dissemination of Useful Knowledge," and printed by the Bureau of Agriculture, Montreal, 1855.]

Carrots, says the author, do well in light soil which has been plowed to a great depth, and they consequently form part of the regular rotation of crops upon light lands. When they are sown as a principal crop, it is generally after potatoes, buckwheat, or a kind of turnip called rape. The earth having been well affected by these crops, is subjected to any additional plowing before winter, and receives one-half the quantity of manure usually employed, either that of neat cattle, or the sweepings of streets, with which is mixed one-third part of hog manure, under the idea that this last drives away the moles and mice of the fields which otherwise endanger the crop. The land is now plowed to the depth of six or seven inches, and thus rests for the winter. At the commencement of April the land is again plowed to the depth of nine or ten inches, and manured with liquid manure at the rate of about twenty hogshead to the acre. Two and a half pounds of seed are sown to the acre. The harrow reversed (*unversei*) is then used, and the spaces between the beds are dug up with a spade, and the earth is thrown evenly upon the seed. The roller is then passed lightly over the field. In some cases liquid manure only is used. If the preceding crops were potatoes, the soil is usually sufficiently rich, and any addition of manure has only the effect to make the carrots fork, this being caused by an excess of manure. But if carrots follow buckwheat which has not been highly manured, it is necessary to add manure in order to secure a good harvest. The more the manure is decomposed and mixed with the earth, the better for the crop. When the carrots are up it is necessary to weed them with care. This is the principal trouble; and women and children who labor upon their hands and knees are annually employed in that service.

If the seed-sower is used, much trouble is saved by the use of the horse-hoe between the rows and then the hand-hoe among the plants. If the carrots are missing, the farmer supplies the ground immediately with the turnip or spurry, in order that no time may be lost. In May the carrots are thinned, and those which are pulled are given to cows. They are left at the distance of six inches from each other. Field carrots in Flanders are of two sorts. One is the orange carrot of Holland, now quite common in England; the other is the white carrot, which is more vigorous, attains a greater size, and upon a light soil yields a much larger crop. After an experiment upon a small scale, we are compelled to believe that it is a valuable addition to our family of roots for the use of animals in the winter.

The white carrot is usually sown with another crop, as flax or barley. In such cases it is sown one or two weeks after the principal crop. The flax or grain will come forward rapidly, while the carrot is consequently kept down, and must content itself with pushing its roots deep into the soil, without much increase of size, or growth of leaves. After the flax is pulled, they pass again over the field and remove the weeds. A dressing of liquid manure is then furnished, and the carrot increases rapidly. If the principal crop is barley, the stubble is pulled up with care, and the carrot is then treated as above.

Towards the middle of October the farmer is thus able to take a crop of carrots from land which had already furnished an excellent crop in the first part of the season, and thus obtains a considerable additional quantity of food for his animals during winter. Carrots are sometimes sown among peas. The peas ripen in July, and are immediately gathered, and the carrots are then treated as before described. When peas and carrots are raised in alternate rows, the result is usually favorable. In either case fifteen loads, ten or twelve tons, are considered a good crop.

If we judge from the product of about one-eighth of an acre of good sandy land, on which, in England, the white carrot is often raised without manure, in rows one foot apart, well weeded and hoed, the crop may rise to the amount of twenty-two tons per acre. The orange carrot ordinarily produces only half that amount from the same soil.

The parsnip is sown upon lands which are too vigorous for the carrot; and in deep, rich marl, the product is abundant. Parsnips have the advantage of being able to withstand the severest cold, and consequently need not be housed, but may be left in the ground until the moment of consumption. They are not considered equal to carrots for milch cows, but are better for fattening animals. The quality of the soil should decide whether the parsnip or the carrot may be sown with most profit.

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*For the New England Farmer.*

## POULTRY REARING, &c.—No. 2.

MR. EDITOR:—In No. 1, I gave you my manner of keeping hens laying when shut up. I now send you some suggestions that may interest the breeders of poultry; every family can and should keep a few laying hens; but I would not advise every one, however situated, to raise chicks.

A person that desires laying hens will obtain the smaller sorts, as they are better layers and poorer mothers; on the other hand, a person who wishes to raise for the market will obtain the larger kind, as they will obtain an earlier market size.—Large hens kept for layers ought to produce golden eggs to pay a fair profit on the feed they consume.

Again, persons in a village, or near neighbors, should not raise poultry, as they will have to be shut up, and to shut chickens in a yard, and to think of their being fit for an early market, is absurd.—Chickens, to grow and do well, must have their liberty, besides all they can eat. A farmer, or person by himself, with a warm, dry situation, right kind of fowls, and managed properly, will find poultry as profitable as the raising of any farm stock; if not so managed, the most unprofitable. Chicks ready for the market by the first of July, weighing

from four to five pounds the pair, bring from $1,25 to $1,50, which is a large per cent. above what they ought to cost; and to obtain such, you must have a healthy stock. Change your male bird every year, and avoid in-and-in breeding, for of that comes ricket, deformed bodies, gapes, pip, &c. Set as many hens in March and April as desire to do so, none after that time, and as many in the former month as possible, for one early chick is worth three late ones.

Never set a hen upon hay or straw without earth underneath, as the heat escapes more readily, and in the early season is very essential; also when she leaves her nest for food it will retain the warmth longer. The bottom of the nest should have two or three inches of earth, and nearly level, to enable the hen to move her eggs when instinct prompts her so to do. Always provide food and water where she can readily obtain them, and return as quickly as possible. Leave her to herself for twenty-one days, at which time one-half of the brood will be out. Remove the shells and give no food to the chicks for forty-eight hours; nature having provided for them, until about that time, when fine cob meal, and clean meal and shorts in equal proportions, mixed with milk, sour or sweet, until they are three or four weeks old.

The hens should be cooped on the earth, or where they can have gravel and sunshine, and avoid wet and damp places. When old enough, cracked corn and buckwheat, barley, &c., can be added.

At the age of four or five weeks the hens can be set free, and with meal, corn, chopped scraps mixed with sour milk, to go to when they want, they will need but little attention after.

PREPARATION FOR THE MARKET.

Chicks that weigh three pounds alive, will dress two pounds. Having provided yourself with a garment suitable for the business, and having your fowls boxed the day previous, you take the chick by the legs, head down, and with one smart rap on the head with a stick an inch in diameter, and a foot in length, stun it; then place the body between your knees, and with a sharp knife cut the upper part of the mouth from eye to eye; waste no time, but commence with the wings, and pluck the fowl as quickly as possible. In dressing, draw the entrails only, but they must be done properly and without accident, otherwise the value is lessened. Leave on the head, and remove no crop.

I have been somewhat particular in the dressing, as poultry poorly prepared for *Boston* market will have to be sold 25 per cent. below others of same value otherwise. H.

*Concord, Mass.*

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CURIOUS HABITS OF MACKEREL.—The habits of these fish are very peculiar. And although they have been taken in immense numbers for three-quarters of a century, their habits are not well understood. They often move in immense bodies, apparently filling the ocean for miles in extent. They are found near the surface. Sometimes they will take the hook with the greatest eagerness. At other times, not a mackerel will bite for days, although millions of them are visible in the water. When they are in the mood for taking the bait, ten, twenty, and even thirty barrels, are taken by a single vessel in a few hours. They usually bite most freely soon after sunrise in the morning, and towards sunset at evening. They all cease to bite about the same time, as if they were actuated by a common impulse. They are easily frightened, and will then descend into deep water. It has often happened, that a fleet of vessels has been lying off the Cape, a mile or two from shore, in the midst of a school of mackerel, and taking them rapidly upon their decks, when the firing of a gun, or the blast of a rock, would send every mackerel fathoms deep into the water, as suddenly as though they had been converted into so many pigs of lead; and perhaps it would be some hours before they would reappear. They are caught most abundantly near the shore, and very rarely out of sight of land.—*Peter Gott.*

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## THE BALDWIN APPLE.

During the interesting discussion upon *The Cultivation of Fruits*, at the last agricultural meeting at the State House, the conclusion of which is given in another column, Mr. SHELDON, of Wilmington, spoke of Col. BALDWIN as the person who gave this renowned apple notoriety, and said that there is now but *one person* living, who knows, for an absolute certainty, *the spot where the original tree stood.* He said a monument ought to be erected, not only to mark the spot, but with a suitable inscription to perpetuate the name of Col. Baldwin, who discovered the merits of the fruit, and took pains to extend it over the land. The chairman, Col. WILDER, said it would afford him pleasure to aid such a movement, and so did others who were present.

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*For the New England Farmer.*

## THE RHODE ISLAND GREENING.

MR. EDITOR:—Can any of your readers tell us—who live in this neighborhood—what we shall do to our trees of the yellow cheeked greening—the Rhode Island greening?

Some twenty-five years since, the trees produced very large crops, perhaps more abundantly than any other variety of apple in this region; for ten years past they don't bear at all well. The bloom is abundant; a large number of small apples fill the branches, but when the fruit is about the size of a pea, and thence up to the size of a hen's egg, it begins to drop, and at harvest time, the trees are bare; the fruit doesn't set well. One of my neighbors says it is the drought, the dry summer, that causes this. Another looks for the cause to the exhaustion of the soil. Both the old and young trees of Rhode Island Greening no longer produce crops. Shall we remedy the evil by sending to Rhode Island for new trees? Shall we try grafts from old trees? Some say this apple has run out. I don't think that any variety runs out, if the trees are properly taken care of. What is wanting to the apple tree that the stem does not hold to the tree? Having always used barn manure, must we try the manufactured fertilizers? Will guano help us? Some say the east winds produce this result with the trees; but the east winds blew thirty years ago, when this kind of apple was produced in the greatest abundance. SUBSCRIBER.

*Duxbury*, 1856.

*For the New England Farmer.*

## RURAL ECONOMY OF THE BRITISH ISLES—No. 10.

EASTERN COUNTIES—MIDDLESEX, HERTFORD, ESSEX.

The Eastern counties of England are ten, to wit, Middlesex, Hertford, Essex—Suffolk, Norfolk, Bedford and Northampton—Cambridge, Huntington and Lincoln.

Middlesex, Hertford and Essex may be called metropolitan counties, from their proximity to London. Middlesex, especially, which is the first county we enter on crossing the Thames, has no agricultural importance; it is small in extent, and almost entirely occupied by the immense metropolis of the British Empire. Beyond the town properly so called all that is not in villas or gardens, is under grass, either natural or artificial; the hay from which is sold in London or goes to supply the dairies of the capital. Proximity to such a large population affords enormous supplies of manure, by which the fertility of the soil is renewed. It is admitted, however, that farming, in the neighborhood of London, is not what it might be. High as rents for arable land are—averaging $10 the acre—they do not reach the rents paid in other parts of England. The agriculture of the surrounding counties makes itself felt, through the railroads, to the very gates of the city. Farms in the environs, average one hundred acres—some are three or four hundred, but many are below one hundred. Among the most skilfully managed, is one at Willesden, of 100 acres, entirely in grass, 60 in natural meadow, and 40 in Italian rye-grass, and let at $18,75 the acre.

Immediately to the north of London is the small county of Hertford, which like Surrey on the south, is filled with villas and gardens. It possesses one of the most remarkable establishments in England, namely the laboratory of agricultural chemistry, belonging to Mr. LAWES, the only establishment of the kind now existing. A private individual has established and supports, at his own expense, a costly enterprise, which, elsewhere, governments have declined to undertake. All England looks to the results of experiments there carried on, and it has already furnished valuable information as to the kinds of manures best suited to the different crops and soils. The laboratory is on the scale of a regular manufactory, with steam engine, enormous furnaces, &c., and the entire carcases of cattle are reduced to ashes, for the purpose of exact analysis. A piece of ground of 12 or 15 acres serves as a field for trying experiments with different manures.

The impression prevails in England that further progress in agriculture must be by the aid of science, that expense or capital has done nearly all it can; and a half hour's conversation with the first farmer one meets, and his talk of ammonia and phosphates, will convince you that the agricultural mind is running into agricultural chemistry, how wisely, and with what results, time will show.—That it is difficult to lift the veil that covers the mysterious processes of nature, all will admit—that it will never be lifted, so that we can act intelligently in the cultivation of the earth and the rearing of animals, who will say? Agricultural chemistry seems to have established and explained the fact that the most successful manure for grass land is bone dust; and farmers in England willingly pay proprietors seven per cent. annually of the expense of laying this powerful manure upon the soil; as upon every four acres they say it gives them sufficient extra food for an additional cow. Chemistry says the phosphates are taken out of the soil by the constant carrying away of the milk, and requires to be renewed. One or two tons of ground bones are used to the acre, the effect of which is immediate and lasts for fifteen or twenty years.

Next to these two counties comes the county of Essex, containing, like Sussex and Kent, about a million acres, and it much resembles these counties in its history. Though so near to London, its agriculture is not in good condition—it almost all rests upon clay; and its system of farming, for this reason, has, like that of Sussex, cereals for its object. For the same cause, there is a greater division of farms than in three-quarters of England—the farms generally varying from one hundred to three hundred acres. Many farms are cultivated by their own proprietors. Properties in this county have generally been mortgaged to the extent of more than half their value; and carried on therefore with little capital. The result has been foreclosures, and a pretty large number of forced sales. The English attribute this result to too great division of property—I should attribute it to want of capital to furnish stock and carry on the farms. Large proprietors, as a general thing, have more capital than small ones, in proportion to the extent of their property—often more intelligence; but a proprietor of a moderate sized property, of capital proportioned thereto, and equal intelligence, will carry it on better than a large proprietor, as I think.—That sized farm is the best which most reduces the expenses of production; but capital, capital, with intelligence, is the thing in farming, as well as in manufacturing; and a small farm can do better without capital, than a large one.

Fortunately for Essex, it possesses one of those energetic individuals, who is of a spirit to contend with the difficulties by which farming is surrounded in that county. This is Mr. MECHI, a cutler by trade, but devoted to agriculture, who owns the famous farm of Tiptree Hall, situated in one of the worst parts of the county, and often visited and described by foreign agriculturists. All that the inventive spirit of the English could imagine to make the soil produce to its utmost extent, and overcome the resistance of clay lands, is employed by this indefatigable man. The farm is of about 170 acres, the average size of farming and property in the county; the farm was originally of marshy land, which had resisted hitherto all kinds of culture. The soil has been relieved of stagnant water by thorough draining, and then turned up to the depth of two feet, and transformed by means of the most powerful fertilizers. In the centre is a steam engine, the soul, as it were, of the farm. Mr. Mechi feeds on the farm, besides working horses, 100 horned cattle, 150 sheep, and 200 pigs, or equal to about one head of cattle per acre; and these animals are entirely stall-fed, and grow and fatten almost perceptibly. There is scarcely any natural pasture on the farm; one-half is in wheat and barley, the other half in artificial fodder and roots.

It must not be supposed that this farm presents the true state of English agriculture. It is rather a vigorous effort, than a success—more admired than imitated. It is said Mr. Mechi sinks a good deal of money on his experiments. But if he does, I may, with some show of reason, prefer his extravagance in farming, to that of the men (who are

not few,) who, with their money, would have built on the same land an elegant villa, with Gothic summer-house, and other similar appendages.

It would seem, from the history of farming in Essex, that it is as true in England, as with us, that debt is the great enemy of farming—that the mortgage is a blight on agricultural prosperity—and want of capital is fatal to success. On the other hand, Mr. Mechi's farm of Tiptree Hall would seem to show that capital may be over-spent, so as to give no return; and that there is a proper and wise prejudice among practical farmers against extravagant or high farming. Still, does not the fact stand that the farmer must make liberal advances to his land, and must have an amount proportioned to his acres, invested in stock, implements, fixtures, drainage, &c., in order that he may be successful? What is wanted is, that the practical farmer who has capital, should, judiciously and for his own interest, advance more capital than he now does to his farm; not that he should be called upon to imitate the man, who, city-bred, comes forth into the country to carry on his newly purchased farm, as he would a mercantile adventure. The farmer should rather compare himself with the manufacturer, and consider himself engaged in a similar pursuit; the manufacturer rarely succeeds without capital; no more can the farmer; both raise or make objects of necessity for the market, and the one employs the agencies of nature about as much as the other in producing his results; both occupations require capital, thought and skill. I am tired of hearing agriculture called a science—it is not a science any more than manufacturing is a science—science may aid farming or manufacturing; thus far it has aided manufacturing more than it has aided farming.—Agriculture is an art, a business rather than a science, to be conducted like all arts or business, by capital and skill. M.

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*For the New England Farmer.*

## USE OF PLASTER.

Mr. Editor:—I wish to make some inquiries of you or your correspondents in regard to the use of plaster. Plaster costs at the mill here eight dollars per ton. Will it pay to sow it on pasture and meadow land? If so, on what kind of land and what quantity per acre should be used? A farmer once said to me he sowed one year seven tons, and could perceive no benefit therefrom. I have applied it to potatoes when planting, which I think decidedly preferable to applying it to the tops, and also to oats with marked advantage. Whether it should be used on oats when sowing and harrowed in or after they are up, I am undecided. Either way the crop will be greatly increased. Can it be used to profit also on wheat and rye?

It is customary in this region to sow buckwheat about the 20th of June, but the crop is often greatly injured, if not destroyed, by early frost. Can it be sown earlier and a good crop obtained?

Can you give a description of a cheap stump machine which can be operated by one horse or a yoke of oxen? S. S. B.

*Essex, Vt.*, 1856.

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Remarks.—Willis' stump machine is the best we have ever seen. We have often spoken of it, and given an engraving.

*For the New England Farmer.*

## HOW TO TREAT AN OLD ORCHARD.

Mr. Editor:—In your directions to your correspondent relative to cultivating old orchards on poor land, I think you are not quite thorough enough for a farmer of the "old Bay State," and many of us away up here in Vermont look to you for direction *how* to do all things pertaining to farming, so that a mistake of yours causes great injury. I will relate my experience in this matter, which you are at liberty to use as you think proper.

Seventeen years since, I purchased a lot in this village, one mile from, and two hundred and fifty feet above the lake, having a western slope. When I tell you the owner was a sea-captain, that he had not seen it for fifteen years, during which time it had been rented to, generally, yearly tenants, you can imagine its condition better than I can describe it.

On this place was one and a quarter acres of what had once been an orchard of apple trees only; more than half the original trees had died of starvation, or been cut down and burned by various tenants; about thirty trees remained; one-third of them grafted when young, the others natural fruit. These were in such condition that all my friends advised me to cut down most of them, and plant young trees—but, like most Yankees, being stubborn and self-willed, I determined first to try experiments.

I made two drains through the lot, 20 inches deep, carefully completed after the usual mode of *blind* drains. In the spring, after wet seasons, water runs freely from them, two to four weeks; after the dry season, they are dry during the spring; summer rains never affect them. In April, I purchased and applied 50 loads of coarse manure, at an expense of one dollar a load. This was spread evenly, the land carefully plowed and levelled with a hoe. I then applied eight loads of twenty-five bushels each of refuse lime, perhaps equal to half the quantity of fresh slaked lime; this was spread on the surface. The next operation was to have a gardener from the "ould counthriee," (brought up as most foreign gardeners are at the end of a spade-handle) dig with a spade about each tree, twelve to eighteen inches deep, and as far as the roots extended; to complete two trees was his regular day's work. In the summer following, I employed two active young carpenters to prune it, of course, as I directed. Large quantities of dead and decaying limbs were removed; on many trees nothing but sprouts were left; some half a dozen trees were so decayed that as soon as they commenced growing, the dead portions were loosened so as to drop out, and the trees needed heavy posts to sustain them; nearly all of them were either hollow or decaying at the heart.

The next season I commenced grafting; the trees being in active, growing condition, large tops were soon formed. I have since yearly applied a heavy top-dressing of "long stable manure," mostly straw or swamp hay used for bedding horses and cows, and as often as once in three or four years, refuse lime or ashes and peat or swamp muck. The ground has not been cultivated where shaded,—nor has it been necessary—the yearly top-dressing keeping it very light and porous. The grass has been cut often every season.

The practical result of this treatment has been,

that an orchard considered worthless, has, in proportion to the number of trees produced *more* and *better* fruit than any other in this county, more uniformly productive, and is still in a healthy condition. The vacant places when purchased were filled with young trees now in full bearing. But one tree has died in seventeen years, and that in the winter of 1854-5, after the drought of the preceding summer which was very destructive to trees of every description.

This may look like too much work, but if any farmer will try the experiment, call his land and old trees $1000 per acre—charge his manure and all labor to expense account—sell all the products, and after fifteen years' experience he will find a balance of profit equal to any other part of his farm and probably much greater. C. GOODRICH.

*Burlington, Vt., March*, 1856.

REMARKS.—We have referred to the remarks made upon treating an old orchard, and really can find nothing that looks like "a mistake." The occasion did not call upon us to go into minute details, as you have done, and done well. In most cases, we are obliged to leave a great deal for the further inquiry and good sense of the operator to find out for himself.

## TIME TO PLOW.

It is often difficult to know when to plow. If ground is moved when wet, it often remains in very hard and compact lumps. If we wait until the ground is dry, so much work is brought together that it cannot be done in time. A few common sense thoughts may aid in this matter:

1. Sward ground may be plowed when much wetter than any other, without causing it to be hard on drying.

2. Sandy and gravelly land is much less injured by handling when wet, than clay or clay loam.

3. The plow is not half as bad for wet ground as the harrow for several reasons. In plowing, the team tread on the broken ground far less than in harrowing. The action of the plow is different. The one raises up and turns over, the other drags down and presses together. So true is this, that ground thus harrowed will soon become a mass of brick-bats, and remain so for years. Ground may be plowed when pretty wet if you will let it remain untouched afterwards, till dry and warm, and by this treatment it will be fit for sowing sooner than if not plowed.

The same principles will apply to spading and raking. Ground may be spaded up when considerably wet, if you lay down each spadeful carefully, and be sure not to touch it with the spade or with a rake until it is thoroughly dry. But if each spadeful is knocked down with the spade, and as soon as the surface crumbles, is raked until it is beautifully smooth, the air will be to a considerable extent excluded, and the whole ground be hard and difficult to till during the whole season. Plowed or spaded, the ground, if wet, should be left as loose as it can be left, that it may dry rapidly and crumble easily, and the case must be a very urgent one which will justify putting the harrow or the rake upon it till it is dry. Then it will break down easily and remain light and easily tilled through the entire season.—*Dr. Reed, Pittsfield.*

*For the New England Farmer.*

## APPLICATION OF BARN MANURES.

My general practice has been to keep manures as dry as possible until it is to be used, and for this purpose I have built leantos to my stables.

My mowing and tillage land (fifteen acres) is a mixed medley of dry, sandy, gravel loam, heavy loam and swamp muck. When I first occupied the farm eighteen years since, it was what was usually called "run out," having been rented for several years, and the crops sold or carried off; now I know of no land more productive in this picturesque valley of the Deerfield river. The course pursued has been the following, beginning with the uplands.

In the spring, plow as much greensward as I can manure *thoroughly*. I have uniformly plowed a little deeper than any of my neighbors, and take more pains to plow well, but detest a flat furrow. The manure is spread on the surface as evenly as possible, in its raw state; from twenty to forty cartloads to the acre, and thoroughly harrowed, planted and thoroughly hoed three times. The corn is cut up and taken off early in October, and the ground sowed with rye, and seeded in the spring to ten quarts timothy and two of northern clover. I usually mow three years, then plow again as before.

Last spring I adopted the method generally recommended by scientific farmers of *plowing in* the manure on the whole of my planting ground, in three separate patches, composed of four different kinds of soil, and all in good heart. The result was that I had a smaller growth of corn than I have had for several previous years. I shall plow in no more manure at present.

The swamp lands after being thoroughly drained, one part was plowed and planted with corn, manured with green horse manure, and afterwards seeded; another part was covered with about one hundred bushels of loamy sand to the square rod, manured and seeded with grass and oats; and another part plowed and seeded in the sod in August. This last method I consider the best.

I occasionally spread green manure on moist mowlands, and after bushing and rolling, sow a bushel of gypsum to the acre; the same on my corn lands also as soon as the manure is spread. The manure that is made during the summer by plowing occasionally the droppings of the barn-yard with what had been carted in the previous fall, is spread on such part of the mowland as is not to be disturbed by the plow, as soon as is convenient after haying, the sooner the better; when the yard is to be filled again with either sandy loam or muck, the *which* to be decided by the quality of the land for which it is intended. P. FIELD.

*E. Charlemont.*

HYDRAULIC RAMS.—Mr. R. A. Gesner, of Salem, Oregon, asks the editor of the *Country Gentleman* some questions relative to the Hydraulic Ram; and as his reply may be of service to some of our readers, we subjoin it:—

Three feet fall, in thirty feet, as in the instance mentioned, will be ample to operate a water-ram to advantage, and raise the water to fifteen feet as proposed, or to any other desired height, if it be five times this elevation. The ram will not be likely to succeed, however, with a driving-pipe less than one

inch in diameter, and the quantity of water should be at least half a gallon per minute. The discharge pipe need not in this case be more than a half an inch internal diameter.

The quantity of water elevated in as many times less than the amount furnished by the spring, as the elevation of the discharge pipe exceeds the fall of the driving pipe, with friction also deducted. If, for example, the drive-pipe descends three feet, and the elevation is thirty feet, a spring furnishing one gallon per minute, will elevate one-tenth of a gallon per minute to the height named, or one gallon in ten minutes, deducting the amount of friction. The latter usually varies from 10 to 20 per cent. in this instance, the real quantity of water driven 30 feet high would be about 8½ gallons every 100 minutes, or nearly one-twelfth of the whole water of the spring.

As the power of the ram depends on the *momentum* of the descending cylinder of water, there should be a longer drive-pipe where there is a greater head to be overcome.

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*For the New England Farmer.*

## DARLING'S EARLY SWEET CORN.

MR. EDITOR:—I think it was in an early volume of Downing's *Horticulturist*, that I first observed a notice of "Downing's Early Sweet Corn," procured by a cross with the Canada corn. It has proved with me, (and I have raised it several years,) an exceedingly sweet kind of corn, as well as an early sort. It is incomparably sweeter than Mapes' sweet corn, which, whatever may be its virtues in late keeping, certainly has very little sweetness about it, and is moreover, a very late kind, the stalks in growth and root showing a western or southern origin. Of the various dishes of sweet corn I have ever eaten, I have never found any equal in deliciousness to "Darling's Early," and hope those of your readers not familiar with it, will procure it, and I feel sure that they will confess that a new world of sweetness has opened for them. It can be obtained, I presume, at your seed stores in Boston.

### THE MOON AND VEGETATION.

Not having had time to read some of the last numbers of the monthly *Farmer*, I know not but the moon question has already been settled therein, but if not, I would inquire if the advocates of lunar influence bear in mind that whether the moon is new, old or full, there is as much of the substance of the moon towards the earth in one case as the other, although that side be not fully illuminated by the sun except at full moon. It may be reasonable to suppose the tides affected by the relative position of the moon toward the waters, but much more difficult to suppose that the greater or less *light* from the moon can affect vegetation, when the *entire face* of that body is always toward us when it is in the heavens; and yet more difficult to suppose that vegetation is affected by whether the eighth of the illuminated part of the moon visible to us is on one side of the moon or on the other, or, in other words, by the moon's being "old or new," for that is all the difference between old and new moon.

It is so easy for people to infer cause and effect from mere coincidences that it is not strange that many mere notions, unsupported even by probability or any reason, find many firm believers.

*Northampton, April*, 1856. L. S. H.

*For the New England Farmer.*

## FEEDING COLTS.

MR. EDITOR:—I notice in a late number of the *Farmer*, an article from "A Subscriber," calling upon some one to point out the "best" mode of *feeding colts* the first and second winter after taking them from the mare, &c. &c.

The task of pointing out the "best" way of doing these things I shall leave for another to perform, while I briefly state my own method of treating colts, during the time above mentioned.

I never wean a good colt before he is six months old, unless the dam is a very bad nurse. In that case, I wean the colt when it becomes necessary to stable the mare. In all cases, I wean on hay, and from the commencement of weaning, till there is good grass the following spring, I give a daily feed of a pint of oats, and a bran mash, or roots; carrots, if I have them. I never allow a colt to stand upon a floor before he is two years old, as I believe the practice prejudicial to the formation of good feet. During the second winter, I give my colts no grain or roots. If a mare brings a foal every year, I would not allow her to nurse more than six months; and in fact, no good mare should be allowed to nurse more in any one year, and in my opinion, if the weaning is defered longer, it is at the loss of the owner.

The above are a few of the many rules observed by me, in breeding and rearing a hardy and long-enduring horse. Whether he is to be used in future, as a horse of all work, or to be kept exclusively for breeding purposes, I have found the final results to be nearly the same.

*Derby Line, Vt.*, 1856. SOLOMON STEELE.

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*For the New England Farmer.*

## A. L. BINGHAM'S SHEEP-SHEARING FESTIVAL.

Having seen a notice in the Ohio *Farmer*, from a gentleman in Jefferson Co., that he would shear the Silician sheep for dollars and cents, against any breed in the United States, I was induced to advertise, through the agricultural papers west, that I would shear thirty ewe lambs, dropped last March, against an equal number of any man's raising in the world, for quality and quantity, unwashed or cleansed, or for dollars and cents, according to live weight, every man keeping his sheep as he pleases. Now I propose, in compliance with what I have published, to hold this sheep shearing festival at Middlebury, on the 17th and 18th days of June next, commencing at ten o'clock in the morning of the 17th. The first day will be devoted to the shearing of the sheep, the second will be devoted to a general exhibition of horses, also there will be purses offered for the fastest time made by trotting horses.

Also, there will be an exhibition of ladies' and gentlemen's horsemanship, to be held on the fair ground, near the village. Also, at the close, in the evening, there will be, what is called a sheep shearing festival ball, to be held at the Addison House, Middlebury. Now, one and all are invited to attend, and have a good time; all papers will please confer the favor to give notice through the land, and oblige A. L. BINGHAM.

*West Cornwall, April 7*, 1856.

## A NEW SEED SOWER.

We have rarely examined a machine which commended itself so readily to our judgment, as the one pictured below. As will be seen by a reference to the illustration, the whole thing is simplicity itself. There is little friction for the strength to be wasted on, and so few pieces and little gearing, that a single glance would detect anything out of order, if it could be deranged short of a violent blow.

One great advantage in this sower, is the ease with which the hopper which contains the seed may be taken off and the seed changed. To do this nothing is required but to move a hasp, when the hopper may be taken off and the brush removed.

In this machine we have the advantage of an adjustable plow, by its being hinged to the arbor of the driving wheel forward, and holding the roller in the rear of the plow by the same arms, thereby giving a uniform depth to the seed, independent of the operator. There is also attached to the plow an iron rod, which passes through the cross bar of the handles, by which the operator is enabled, by dropping the handles, to raise the plow, and at the same time the seed is cut off, and the whole thing is thrown upon the forward wheel; then the machine may be run from one row to another, or from field to field, in the easiest manner possible. The plow is self-covering. The whole thing is simple, and easy in its operations.

We believe this machine will prove a valuable one, but intend to give it a thorough trial and then speak of it again. The improvements are by Mr. JAMES A. HOWE, of Boston, the same gentleman whose skill wrought the changes in the Horse Hoe which were figured last week.

The machine is light, and will be sold cheaper than the large ones have been heretofore.

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SEA BATHING.—Horne Tooke ridiculed the practice of sea bathing, and said, if any of the seal species were sick, it would be wise for a seal physician to order them to go on shore. Porson declared that sea bathing was only reckoned healthy because many persons have been "known to survive it;"—but Sheridan's objection to salt water was the most quaint: "Pickles" said he, "don't agree with me."

*For the New England Farmer.*

## ROCK ISLAND, ISLAND CITY.

I mean the veritable Island itself, not the city of that name, just below it. This beautiful three hundred acre plat is, and is to be, Government land, which no sharp speculator in land-warrants can "enter," at any price. Nature, in her uncontaminated, primal mood, reigns here undisturbed. Venerable oaks and elms, thrifty young hickories, maples, ashes, clambering vines, with all the nameless shrubbery and undergrowth, interspersed with little open grass-plats, gentle elevations and depressions of the surface, responsive to the underlying *rock*, and surrounded by the ceaseless murmur of the Mississippi rapids, render this one of the most enchanting spots on earth. While you are still shrouded in a mantle of snow, the grass is here quite green, and the birds are singing as merrily as in May. One is forcibly reminded, as he enters the little quiet nooks, or wanders through the narrow paths, of the original garden, where Adam and Eve

> ——"both stood,
> Both turned, and under open sky adored
> The God that made both sky, air, earth and heaven,
> Which they beheld."

All the more delightful and refreshing is such a place, by contrast with the monotonous prairies on either side, and the "intense practicability" which is every where exhibited. Not that a wise and an earnest practicalness is to be despised, or is anything else but a wholesome duty; but that neither is an occasional recurrence to the principles of taste and beauty in nature, which God has so profusely planted around us, anything else but a duty also, and a prime felicity,

The Iowa farmers, in this vicinity, are now sowing their spring wheat, while the frost is still a foot in depth, in many places. So soon as the ground is thawed down sufficiently to receive a plow, it is ready for seeding. The rapidity with which the

surface dries, while the frost is still deep below, is very remarkable. There is none of the up-heaving and continual moisture, so common in Massachusetts, till the frost is gone; but the roads and fields become dry and dusty as summer, while it is gradually melting away beneath. I remember hearing Prof. Nash complain of the dryness of the atmosphere at Amherst, as unfavorable to the throat and lungs. But here it is much dryer, and yet the country is regarded as peculiarly favorable to that class of disorders. How does the Professor explain it?

The tide of immigration this spring is immense. The great bridge across the Mississippi, at this point, is expected to be ready for the iron horse in another week. All of the most valuable land in Illinois is already taken up, and that in Iowa is rapidly being so. No public land of any value can be had, within a hundred or two hundred miles of the river. Why do not more people go to *Missouri*? Land can be obtained there, within ten miles of the Iowa line, for five dollars an acre; while at the same distance, on the other side of the line, the same quality of land brings fifteen dollars an acre. M. K. C.

*April* 12, 1656.

## EQUIVALENTS OF VARIOUS PLANTS TO HAY.

MR. EDITOR: — Farmers are often at a loss to know how much of one kind of ordinary fodder is equal in nutrimental value to an equal amount, in weight or measure, of another kind. For instance, if I find my horse is kept in good working condition on eight quarts of oats and ten pounds of hay every twenty-four hours, how much *corn* must I give him in the same time with the eight pounds of hay to produce the same result as the eight quarts of oats? In Berger's *Economy of Farming*, translated by Smith, there is a "Table of Equivalents," which will be found useful to those having the management of stock. The following is an extract:—

| | | |
|---|---|---|
| 100 | pounds of hay are equal to— | |
| 90 | pounds | clover hay, made when fully blossomed. |
| 98 | " | made before it blossoms. |
| 98 | " | second crop of do. |
| 98 | " | Lucerne hay. |
| 89 | " | Sainfoin. |
| 410 | " | Green clover. |
| 467 | " | Vetches and tares, green. |
| 275 | " | Green Indian corn. |
| 374 | " | Wheat straw. |
| 244 | " | Rye straw. |
| 164 | " | Oat straw. |
| 153 | " | Pea straw. |
| 201 | " | Raw potatoes. |
| 175 | " | Boiled potatoes. |
| 339 | " | Maagel wurtzel. |
| 504 | " | English turnips. |
| 275 | " | Carrots. |
| 308 | " | Ruta baga. |
| 54 | " | Rye (grain.) |
| 46 | " | Wheat. |
| 59 | " | Oats. |
| 64 | " | Buckwheat. |
| 57 | " | Indian corn. |
| 45 | " | Peas. |
| 55 | " | Beans. |
| 60 | " | Horse-chestnuts. |
| 68 | " | Acorns. |
| 62 | " | Sun-flower seed. |
| 69 | " | Linseed oake. |
| 105 | " | Wheat bran. |
| 109 | " | Rye bran. |
| 167 | " | Wheat and oat chaff. |
| 167 | " | Rye and barley chaff. |

An ox requires two per cent. of his live weight in hay per day; if he works, two and a half per cent. A milch cow, three per cent. A fattening ox, five per cent. at first, and four per cent. when half-fattened, and afterwards. Sheep, when grown, three and a half per cent. of their live weight in hay per day." I have found this table of great value while feeding different animals on diverse kinds of food, as well in my stall-feeding and fallowing operations. —*Germantown Telegraph.*

## EXTRACTS AND REPLIES.

### MEADOW MUCK.

MR. BROWN:—If I remember right, it is reported in the New York *Times*, that some one made the remark at the Farmers' Club in New York, that muck, as it is generally used, was not only worthless but absolutely poisonous. Now sir, as I have been drawing muck all the time I could get this winter, the very idea that my labor may be worse than vain, is no very pleasant thought. It is said 12 or 15 bushels of ashes will make one cord equal to cow dung. Ashes are worth here 20 cents per bushel, and difficult to find them at that price.

If you will be so kind as to give us directions how to manage with our muck, it will most thankfully be received.

A subscriber to your paper, Mr. Wm. Gould, made a fish pond last summer. He put into it 120 brook trout. He would like a little information in regard to their management, feeding, breeding, &c. S. CUNE.

REMARKS.—Don't be alarmed, friend CUNE; you have been profitably engaged during the winter. Now put your muck into a heap, and mix as much ashes with it as you can. At 20 cents a bushel, it is cheap manure. After the heap has remained a few months, overhaul and pulverize it. If you wish to haul out manure that you are not ready to use, cover it up well with the muck, instead of hauling too much muck to the barn. Such a heap of muck on a farm is literally a bank from which you may always draw with pleasure and *profit*.

The New York man said, "*as generally used*," and meant by that, we suppose, hauled from the swamp to the upland and directly plowed in. In New England some of us know a better practice, and among the number is Mr. SOLYMAN CUNE.

There is a little work published on "The Artificial Propagation of Fish," which may be found at the bookstores.

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### LIMING LAND WELL MANURED.

MR. BROWN:—I have land of a light, sandy character, on which I intend to spread a good coat of barn-yard manure, and plow it under, and plant corn and potatoes. Will an application of lime, at 33 cts. per bushel pay? If so, how and where should it be applied? G. S. N.

*Deerfield*, 1856.

REMARKS.—We think not. Try the lime on a quarter of an acre, and satisfy yourself.

—

J. S. NEEDHAM, *South Danvers*.—Please accept thanks for the White Thimbleberry plants.

### CAULIFLOWER AND SEA KALE.

MR. EDITOR:—Please inform me, through the columns of your much valued paper, the best time for planting cauliflower and sea kale; and is the sea kale as good for pickling as the red Dutch cabbage? Also, the best manner of cooking or preparing for pickling—and oblige a

*Derby, Vt., April.* FARMER'S WIFE.

REMARKS.—Sow cauliflower seeds in the hot bed in March or April, or in a warm border in May for late setting out. The ground should be as finely pulverized as possible, and shaded with thin matting or a shingle slightly raised from the surface, until the plants show themselves.

Sea kale is sometimes sown in October; in the spring it should be put in as soon as the soil can be brought into good condition, in drills an inch and a half deep, and fourteen inches apart. We know nothing of it as a pickle.

—

### SAND KNOLLS AND PINES.

Several years ago I called on an uncle that lived in Connecticut. He showed me a piece of land that was covered with a handsome growth of fine trees, six or eight inches through. He told me the land was once a blowing, sandy knoll, and that he went to the woods and gathered a lot of pine balls, (seeds) and sowed them on to the land; perhaps he plowed them in.

Would not many of our barren knolls be improved by being covered with little pine trees, which would soon get to be large enough for timber? C.

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### MANURES.

I wish to ask your Beverly correspondent, if he supposes he can make a practical, thinking farmer, believe that the exposure of manure to the drying sun and winds, for but a few days, will destroy all, or even one-half of its fertilizing properties? I should like to see his man effectually manuring four to six acres per day, with liquid manure. Now I have a high estimate of liquid manure, but think it best when one writes to keep probabilities in view. I am satisfied that a great loss is sustained by applying stable, yard, or even compost manure, to grass land that is fit for tillage. It is much better to adopt a rotation of crops, and apply no manure, except when under till. If top-dressing is applied to grass land, other than liquid, let it be composted, by all means, with a large proportion of muck, loam, or other earthy matter.

*Chicopee, April*, 1856. H. N. SHERMAN.

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### CURE FOR THE HORN DISTEMPER.

Bore the horn with a gimblet, and blow through a quill into the horn, a small quantity of saltpetre; or pour into the ears fine mustard and vinegar, well mixed together, taking care to hold the ears in a proper position to retain the mixture as long as possible. The application of either of these remedies may be repeated, if necessary, after one or two days. Either method is a "sure cure." In the most malignant case, apparently, of this disease I ever knew, I tried both these remedies with complete success. This prescription, which now appears, I think, for the first time in print, in the *Farmer*, may save some readers many times the price of their subscription to this paper. S. G. B.

*Essex, Vt.*, 1856.

REMARKS.—We know nothing of the virtues of this prescription, and as a general rule, are opposed to all violent remedies.

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### TICKS ON SHEEP.

MR. EDITOR:—In answer to the query, whether the receipt given in your paper of March 29th, to "kill ticks on sheep," is a safe operation or not, I have to state as the result of my own experience, that in a number of cases where it has been applied (precisely according to the directions given) to flocks varying from one to two hundred, I have not been able to see any injurious effects in one single instance, while it was a most effective destroyer of the tick.

Can you, or any of your correspondents, inform me through the columns of your valuable paper, where and for what price may be obtained a full bred South Down buck and ewe?

J. CHAMPLIN.

*Pleasant Hill, R. I., April* 4, 1856.

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### MATERIAL FOR WATER PIPES.

H. MORSE asks what is the best material for conveying water to buildings. I think, cost, durability and health regarded, that wooden pipes should be used. I have nine rods, laid three feet deep in a moist clay soil, more than thirty years ago, which convey water freely yet. I have also a wooden pump, made twenty-two years ago, and often in use, that I now prefer to a new chain pump.

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### WATER LIFTER.

D. CHILD asks if a cow stepping on a platform can raise water for herself from a cistern or well?—Ans. *She can.* The cost of the machine and fixtures will be from twenty to fifty dollars, as depth of the well, the size of the machine and kind of material used to make of, may be. One that will discharge six gallons, by the weight of the cow, each time she steps on the platform, made mostly of wood, will cost twenty-five dollars. N. E.

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### MANURE FOR MEADOWS.

I wish to inquire through your paper, whether ashes is good for low meadows, or what is best to increase the crop of hay. ASAHEL UNDERWOOD.

*Bennington, Vt.*, 1856.

REMARKS.—Ashes is good for any crop. But top-dressing, with fine composted manure, does well on such land as you describe.

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### FISH GUANO.

MR. EDITOR:—I would like to inquire through you, or your valuable paper, if any one has made an experiment with the fish guano manufactured in Providence, R. I., by the Narraganset Co.?

Yours respectfully, JACOB CROWLEY.

*Mansfield, Mass.*

REMARKS.—No case has come to our personal knowledge. Try a barrel or two, and make careful note of it; keeping an accurate record of the amount of manure you apply, of the manner of cultivating, and the kind of season.

*For the New England Farmer.*

## RURAL ECONOMY OF THE BRITISH ISLES—No. 11.

### EASTERN COUNTIES.

SUFFOLK, NORFOLK, BEDFORD, NORTHAMPTON, CAMBRIDGE, HUNTINGTON, LINCOLN.

In Suffolk, Norfolk, Bedford and Northampton, we witness the results of the agricultural and social revolution which took place about sixty years ago, under the auspices of Arthur Young. At the close of the last century, the lands in these counties were in a more miserable and neglected condition than the lands in the southern counties at the present day; and their poor and sandy character seemed to offer fewer resources to the cultivator than the pine plain lands on the banks of Connecticut river. It was never thought possible to turn the greater part of them to better account, than as large rabbit-warrens; but now they rank among the richest and best lands of England. What mercantile adventure, moderate-sized farming, permanent stabulation, drainage and steam have done in our day for stiff lands, large farming and the four course rotation accomplished, sixty years ago, for light soils.—Money, in those days, was not as plentiful as now, and large amounts of capital were confined to few hands. Everything tended to favor large property and large farming, and the lands most free, for the purpose, were those best suited for large farming. Hence the great success of Young's system, which up to the present day, has acted like a second charter for the English.

Suffolk has not profited by the system of Arthur Young. A large portion of the county partakes of the clayey nature of the neighboring soils to the south; in the north alone, light soils are to be found, at least to any extent. Suffolk, through the influence of Young, is, however, the seat of the largest manufacture of agricultural implements in England. There are to be found the celebrated establishments of Messrs. Ransomes of Ipswich, Gannett of Leiston, &c. These immense factories testify to the extensive use, among English farmers, of the heaviest and most costly machines.

Norfolk has been the true theatre of the success of Arthur Young. The north and west of this county forms an immense sandy plain of 750,000 acres, where there is no obstacle to large property and large farming; and where everything favors horse tillage, cultivation of roots, the use of machines, and the four course rotation. By means of this system, steadily pursued for sixty years, these inferior lands, producing scarcely a dollar and a quarter per acre, in 1780, now return, on an average, six dollars and a quarter per acre, or five times the former amount, as net production; and the gross production has risen, in at least, an equal proportion.

A large part of the credit of this wonderful transformation belongs to an extensive proprietor in the county, Mr. Coke. Mr. Coke had a large property in the west of the county, called Holkham, containing 30,000 acres. This immense estate, which is now worth six millions of dollars, was worth at most in 1776, when Mr. Coke inherited it, a million and a half. It was then in the occupation of a great number of small farmers, who paid their rents badly, although these were very low, and ultimately many of them abandoned their farms, because they could not get a livelihood out of them. It was then that Mr. Coke decided upon farming a portion of these sandy lands himself, and the rest he put into very large farms, and leased them on long leases, to farmers of intelligence and capital. I should not omit to mention (as one purpose I have is to show New England farmers that they must employ capital in farming) that in the course of fifty years, Mr. Coke expended two millions of dollars, in improvements of various kinds, which caused the farmers to lay out about as much more—an excellent investment on the part of both, since they have all made money by it.

Any one who wishes to get an idea of this period in the history of English agriculture, ought to visit Holkham, the farm which Mr. Coke personally directed. Its extent is 1800 acres—500 of which are in permanent pasture, the rest is arable, laid out exactly for the four course rotation. The farm maintains 250 large cattle, 2500 South Down sheep, and 150 pigs. An equally profitable visit may be paid to other farms; but the same principles everywhere prevail followed by the same results. The whole land formerly grew only rye; now it raises not a particle of that grain, but instead are to be seen the finest wheat crops and the best cattle in the world.

The agricultural amelioration of Bedfordshire has been no less complete and rapid than that of Norfolk. Less than a century ago three-fourths of the county consisted of nothing but waste commons. These unproductive lands have been gradually divided, enclosed and cultivated; and owing to the four course system, now rank equal to the full average of English lands. The Duke of Bedford has realized an immense fortune thereby.

In Northamptonshire, adjoining Bedford, rents, during the last sixty years, have tripled from the same causes which have operated in Norfolk and Bedford.

Of the ten counties which compose the eastern region, the three last, Cambridge, Huntington and Lincoln, form a division by themselves—the fens. In looking at the map of England, we observe a large bay running into the land at the north of Norfolk, called the Wash. All around this muddy bay, the land is flat, low, and was constantly being covered by the sea. These marsh lands, at one time uninhabitable, now rank among the richest meadows of England. Situated opposite Holland, they have, like that country, been reclaimed by means of dykes. The area of these three counties is about 2,500,000 acres, of which the fens, properly speaking, occupy about a third. The lands reclaimed are already intersected with roads and railroads, towns have been built and farms laid out upon them. These once submerged lands are let at a rent of $6,25 to $7,50 per acre. Cereal and root crops are occasionally seen on them; but the most part is in grass, on which are fattened short-horned cattle and sheep, a cross between the old Lincolnshire and the Dishley.

All the north of Cambridgeshire forms part of the fen district. The average rent has doubled, within the last forty years. The southern part, in which clay soils predominate, is not in so satisfactory a state. Huntington, the county of Oliver Cromwell, has nothing in an agricultural view, to recommend it to our attention.

Lincolnshire, which a century ago, was more sterile and waste than Norfolk, now disputes the palm with that county in agricultural develop-

ment. Fens occupy the south and east, wolds and plains the north, and moors the west of this county. The fen district goes by the name of Holland, which it much resembles. The advancing dykes, which gain more and more every day from the sea, are the same, the meadows the same, and the flocks nearly the same; the country is low and wet. Rents average $7,50 per acre. The wolds are dry and bare upland, with a calcareous subsoil, which the four course system has entirely transformed. These wolds are now rented at $6,25 an acre. The moors, now called Lincoln Heath, were at one time more barren than the wolds; but now the change there is not less great.

Large farming, as well as large property, flourishes in the wolds in Lincolnshire. We find farms of 1000, 1500 and even 2000 acres. Such farms grow from two to five hundred acres of turnips, a like extent of barley or oats, as much clover, and equal extent of wheat. The farmers are almost all wealthy, and live in a liberal style. Lord Yarborough is the wealthiest and most efficient proprietor of this county, owning about 30,000 acres, yielding a rental of $150,000. What a change in these once desert moors, where the traveller often lost his way.

We have now finished our journey over the eastern counties. I think my readers will concur with me, that we have not found in the eastern counties, as we did not find in the southern, a soil naturally superior to that of New England. In all that we have seen of England thus far, whatever the superiority of its agriculture, we are safe in saying, that this superiority is not owing to the natural superiority of its soil.

I might illustrate these remarks by showing various instances in which England has made great things of kinds of land, of which, as yet, we have made little or nothing. I confine myself to one instance, suggested by the fens we have just travelled over. We have large tracts of salt marshes on every part of our sea coast. They are generally composed of a fat rich soil, often several feet deep. These are our fens. But what have we made of them, compared to what England has done? They produce a crop of hay worth half the price of upland produce. I know attempts have been made in many places to dyke out the sea water, and in a few places most luxuriant crops have followed; but generally the lands have again run to waste, and the sea water again been admitted to cover them. Doubtless they are difficult to be reclaimed; but I doubt whether most of the experiments have not failed from being imperfectly made. Though the tide has been kept from overflowing the surface, the water within the soil has been kept too near the surface to prevent the soil being freshened. In one word, they have not been underdrained. Certain it is, that what has been done in England, can be done in New England. And one day in the hereafter, the best farms in New England will be found on its now neglected coast. M.

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RURAL ECONOMY OF THE BRITISH ISLES.—In another column will be found No. 11, of the interesting series of articles, by "M.," a gentleman who has made some of the most expensive and valuable agricultural experiments that have yet been engaged in, in New England, and which we hope will at some not distant day be made public. With great intelligence and close observation, he possesses a rare ability in expressing his own, or of giving the views of others in a clear, concise and happy manner. In a note to us communicating the numbers, he says—"They are collated from the work of a very acute Frenchman little known in this country, which has interested me very much." In an interview with the writer, subsequently, he gave us an account of the work of the Frenchman, Lavergne, and how he came to write it. No man has less occasion to resort to the labors of others than "M.," for his head and heart are full of knowledge and interest in the subject of agriculture, as will be evident before the series is closed. Perhaps an announcement of these facts with the first number published would have prevented any misapprehension, although the writer distinctly states that he is *collecting* facts, not originating them.

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*For the New England Farmer.*

## DE SOTO, WISCONSIN.

MR. EDITOR:—About a year ago, you inserted in your columns a communication from my pen, containing a statement of our location, climate, soil, future prospects, &c. On the strength of that communication, a large number of the readers of the *Farmer* located here, and others, not then ready to come, are renewing their inquiries this spring, with a view to ascertain our present condition and prospects. A brief statement will give your readers the information they need. Eighteen months ago, two log cabins and eight inhabitants constituted our town. We have now twenty-two dwelling houses, and over two hundred inhabitants; one steam saw mill; one store 25 feet by 60, three stories high, well filled with goods, at wholesale and retail, and said to be the best building between Du Buque and St. Pauls; one store, two stories high, containing a well selected stock of goods; one blacksmith and wagon shop; one fanning mill factory; one carpenter's shop; one school-house, and two organized churches. We have preaching ever Sabbath. Inquirers for information have demanded that I should be thus particular. In regard to our future prospects I will say a few words. There are now commenced, to be completed with *Western* dispatch, one large ware-house; one large three-story hotel; one block of stores, three in number, for rent; one store to be occupied by the builders; one wagon shop; ten dwelling-houses, and probably thirty more will be erected during the season. In regard to the departments of business unoccupied, a shoe store, embracing a manufacturing department for all kinds of custom work, is greatly needed; a watch maker; cabinet maker; harness maker; baker, tailor, stone and brick masons and plasterers are wanted and will find inviting openings. A shingle machine; a furnace; a steam grist mill, and manufactory of agricultural implements, could not fail to do well. On the opening of navigation, a steam ferry-boat will run between our town and Lansing, Iowa, and will connect with a line of stages running east to Madison, the capitol of the State, where passengers going South or East can take the Milwaukie railroad. We had, at our levee

last season, about 200 steamboats, and the number will probably be double the present season.

Our flourishing little town has a back country of great fertility, and will be the shipping point for the surplus produce of a farming district of great extent. "Can government land be obtained?" No, only in small parcels. Second-hand farming land can be bought, within three miles of town, at from $3 to $6 an acre, unimproved; and at about the same price in the interior. Farms, partially improved, command from $7 to $12 an acre. "Who will be our neighbors?" An important inquiry, which I can satisfactorily answer—probably there is not another town in Wisconsin that contains a more desirable population than ours. Its proprietors have encouraged none but *American* citizens; and it has been their highest aim to have it distinguished for its temperance, morality and piety, and in these respects, it will compare, favorably with any town of the same size in New England. It is, in fact, a New England village, shorn of its loafers, transplanted. "Can you raise fruit here?" Yes. The apple, plum and grape grow here spontaneously. Of the peach I cannot speak confidently; probably it would succeed as well as in the same latitude in New England. The general reader will think me unnecessarily particular in my statements. I have been compelled to be so in answer to particular inquiries. The fare to our town can be more accurately ascertained in Boston. The route will be to Chicago, and Dunkirk—thence by steamer to our landing. Persons arrived here, last year, from Boston, in four days.

Respectfully, JAMES OSGOOD.

*Bad Ax Co., Wis., March* 24, 1856.

## A SHORT TOOTHED RAKE!

Do you own one, Mr. Gardener? If not, you are still without one of the most comfortable, aye, and *profitable*, implements used in your business. For cleaning paths, where the autumnal leaves found a nestling place for the winter, there is nothing like a *short-toothed rake*. For raking the grass borders of paths, the *short-toothed rake* will accomplish the work in half the time that any other will. For finishing off the bed, just made to sow with small seeds, nothing will draw out the pebbles, the bits of stick or coarse manure, like a *short-toothed rake!*

What gives the house a more inviting appearance than a green door-yard, covered with a carpet more beautiful than the art of man can possibly devise? One that need not be taken in when it rains, and whose color is not injured, even if there be a little soap in the water. But it must be clean—no bones that Rollo has gnawed, no dead twigs from the old elm or chips from the wood-yard, must be left there. And here, too, the *short-toothed rake* operates like a charm; it insinuates itself into every little recess, holds all it gets, and supplies plenty of soft dead grass to mulch the rose tree, or favorite plum or pear.

And then on the lawn! We do not mean the amateur's lawn of an acre or two, but the little sunny lawn of the common farmer or mechanic, who never dreamed of a regular lawn rake, with its curved back and capacious maw. On such a little lawn, it is the king among rakes, small as it is. So do not take our word for it, but get a *short-toothed rake*, and find a greater pleasure than ever in working in the garden, and a facility in accomplishing it, altogether unknown before you wrought with a *short-toothed rake!*

*For the New England Farmer.*

## LITTLE THINGS:

OR, A WALK IN MY GARDEN....NO. 7.

I have just been out to examine into the condition of my pear and plum trees. Everything here must be tied to a stake to keep it from being broken down by the snow. While extending my observations, I spied an apple on the ground that had passed through the winter without any other protection than a snow-bank. While looking at it, I was led to think of the causes of

### THE SWEATING OF APPLES.

I have been led to suspect for two years past, that popular opinion was wrong in regard to apple sweating; and these suspicions have become much strengthened during the present winter. Last fall, I gathered my apples later than usual, and put them into my cellar earlier than usual, and during a *very warm day*. They did not sweat at all. Why not? Because I did not carry them into the cellar with a temperature much below the cellar itself, so as to condense the moisture of the cellar upon them. Will apples sweat in a sealed glass jar? I much doubt it, under any circumstances. Has any one ever tried the experiment? I remember a few years since, of filling a barrel in which brown sugar had been kept. The apples were brought from the orchard on a cold morning, and put into a room adjoining the kitchen. In a short time, a stream of water had passed the length of the room, from the moisture of the apples and the sugar. Now I may be wrong, all wrong; if so, will some pomologist convince me by direct proof from his own experience?

*My conclusions.*—Carry your apples into the cellar in the middle of the day, when they are warm and dry, rather than on some cold morning, for fear they will freeze. As I have got from the garden into the orchard, I will look at my various methods of

### MANURING OLD TREES.

I doubt the economy of placing manure around the trunks of old apple trees. Come along with me, and I will give you my reasons. Here are two trees, very vigorous, bear well. Between them a large pine stump was dug up, nine years ago, and the cavity was not filled, but became a receptacle for the trimmings of the trees, from year to year, where they have decayed, and into which the roots of these have penetrated, and furnished abundant nourishment. Let us take the next two trees, yes, four of them. The soil is rather poor around, as is the case with those before mentioned. So I thought I would place some manure around the trunks, almost every year, but they have borne but few apples. Let us go still farther. Here are two trees whose roots extend twenty feet into a deeply

trenched and highly manured asparagus bed. These trees bear abundantly. Indeed, one of them bears every year, supplying me with cooking apples four months in the year. There stand several trees whose roots extend beyond the enclosure into the chip yard. These bear every year, or nearly so. If we now will look at the roots of an old tree, we shall find a few fibrous roots beneath the trunk, but the healthy, large, growing roots, will stretch off at a distance for support.

*My conclusions.*—If you have a wheelbarrow load of manure of any kind, dig a hole eight or ten feet from the tree, and bury it up, and you need have no fears that it will be lost. But what is the matter with those

YOUNG BALDWIN TREES.

They are dead; every one of them,—winter-killed. I believe that better success would attend the setting out of young orchards, here in Maine, if seedlings were allowed to grow until sufficiently large to be grafted into the tops. This was formerly practised with complete success. I do not believe that one-half the trees brought into Maine, for five years past, will ever bear apples. They are small, liable to be broken down by snow, or cattle, as well as to be winter-killed. Many become stinted, and worthless. The Baldwin, here in Maine, should be grafted only into old trees. To boast of a tree that will bear in a few years from the seed, is no gain at all. It never will make a great tree, no more than a pert boy, much above his years, will make a great man. The first scion I ever got, bore an apple the same year. This was seventeen years ago, and it has not grown, nor borne much since. A forced development will be of short duration, whether in man, beast, or vegetable.

*My conclusions.*—That I shall let my seedlings grow till of sufficient size to graft into the branches, transplant with care, graft the second year, and have a bearing orchard sooner, and at less expense, than my neighbors, who adopt the prevailing method. N. T. T.

*Bethel, Me., April* 15, 1856.

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*For the New England Farmer.*

## SUPERPHOSPHATE OF LIME.

MR. EDITOR:—Having been induced by the many flaming commendations of the Superphosphate of Lime, which have appeared in most of our agricultural papers, to experiment a little with that article, I consider it but fair that others should have the benefit of my experience.

On a greensward field plowed deep, finely pulverized, and manured at the rate of about twenty loads per acre, I applied De Burg's No. 1 Superphosphate to corn, putting in each hill with the seed as much of the fertilizer as could be dipped out with a common table spoon. Part of the field was treated in this manner, to a part plaster was applied, and a small corner left without either. At no time during the season could the slightest difference between the three portions be perceived. Soil a warm, rich loam.

To another field, broken up the fall previous, otherwise similarly treated, but having a soil not quite so light or warm, I applied the Superphosphate, with the exception of a small portion left without. Result the same.

I also applied it to potatoes in the same manner and quantity. They were planted on old ground, warm and dry, part treated with Superphosphate, and part with plaster. The crop—as well as the corn—was good, but no difference in favor of the Superphosphate.

A neighbor of mine made similar experiments, with like results. The year previous, he made almost all sorts of experiments with Peruvian guano, and never could discover, *from its effects*, where he had but it.

The conclusion to which these and other experiments have brought us, is that although *amateur* farmers may, with these much vaunted fertilizers, produce some fancy (or *fancied*) results on your sterile Massachusetts soils, yet up here in cold Vermont, (where we have milder winters than they do five hundred miles south of us,) nature is altogether too fast for them. F. A. D.

*Rutland, Vt.*

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## MELONS.

Melons of all kinds require a light, warm and rich soil. That which seems best adapted to their growth, is a light sandy loam, with a pervious subsoil, and a texture susceptible of easy disintegration and fine tilth. Pasture lands of this character usually produce abundantly, if limed or dressed with house ashes. They should be broken the previous year, say in August, and if practicable, on a wet day, and allowed to lie fallow. The next Spring they should receive a good dressing of well decomposed manure, which should be worked in and incorporated thoroughly with the soil, and the seed planted in hills not less than six feet apart. Some recommend eight feet as the proper distance between the hills, but this we consider as useless waste of soil, six feet being space enough for the largest and most luxuriant vines. Some gardeners prefer sheep manure for the hills, allowing from one to three bushels to every plant—the number preserved in each hill. The strong tendency, however, of this manure to ferment vĭolently, and the consequent speedy evolution of the fructifying gases before the plants have attained a development sufficient to prevent their waste by assimilation, renders it less efficacious than that in which the economy of fermentation is less rapid and energetic, unless indeed it be applied after the plants are fully developed, and in a condition to appropriate rapidly their pabulum. Like all plants with broad leaves, the melon is not severely affected by moderate degrees of drought. It stands a sharp drought better than most vegetables, but when fruiting the preservation of humidity occasions a shrinking of the fruit, and circumscribes the productiveness of the vines. Irrigation is frequently resorted to at this season of its development, and always with beneficial results. Soap suds is the best article that can be used, probably, for this purpose. It contains the food of plants in a state of perfect solution, and induces a healthful and rapid growth, besides acting as a remedy for many diseases to

which vines of the culmiferous class are subject towards the close of the season. Urine, in which gypsum has been mixed, is also a good article for invigorating melons, and other vines of a similar kind. It should, however, be permitted to ferment, or be greatly reduced with water before being applied, as in its fresh state it would prove rather detrimental than otherwise to the vines. Water from the barn-yard, which is rich in carbonaceous matter, and saturated with various fertilizing salts, tends to urge forward the growth, and induce a more liberal development of fruit.

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*For the New England Farmer.*

## THE PAST WINTER.

In the course of the winter I had occasion to pass three times over the road from this place to Canada West, and I often heard it remarked that *such a winter was never known.* A similar remark is made almost every year, and to a certain extent, it may be true. If we compare any number of years, perhaps we shall find no two *exactly alike*, yet there is a general similarity.

True, the past winter was one of almost uninterrupted cold weather, but the temperature was much more equable than in some others, the extreme being several degrees nearer together than in the winter of 1854. In *one* particular, however, it *was* remarkable. From the 23d of the 12th month, to the 14th of the 3d month—76 days—we had no thaw in this region. In the night of the 11th of the 2nd month it rained at Boston, but at this place, and in the same latitude several hundred miles west, scarcely rain enough fell to be perceived. The snow on the south side of roofs frequently melted, but it did not soften in the road by the influence of the sun, during the above named period.

The usual "January thaw" was completely lost. Water was very low; many wells which afforded water throughout the dry summer of 1854, entirely failed.

Snow at the South and West was much deeper than usual, but in this vicinity it was not so deep as it frequently is, though as far as I have seen or heard, it was drifted as much as ever. The wind blew almost incessantly about *six weeks*, and an interdict seemed to be laid upon travelling, although from an article which appears on page 159 of the current volume of the *Monthly Farmer*, over the signature of "C. Goodrich," we might infer that northern Vermont presented an exception. I think his travels did not extend beyond those good *sidewalks* of which he speaks, and that his knowledge of the regularity with which the cars run from Burlington to Rouse's Point must have been based upon "*hear-say*," or he would hardly have made such assertions. I should not have called his statements in question if I had not had some experience in travelling on that road.

The 12th of 2nd month last I went from Franklin, N. H., to St. Albans, Vt. The train was due at St. Albans 10 minutes before 8 o'clock, P. M., but we did not arrive until *nine*. A gentleman from Boston, then present, informed me that he went over the road three weeks before, and did not arrive until midnight. I also learned that for a considerable time the cars had been an hour or more "behind time." The night was very cold and windy, and the next morning the train from Burlington was *half an hour* late, and we were detained an *hour and a half longer* in consequence of the snow which had blown into the road during the night, making us *two hours* late at Rouse's Point. But friend G. says "the cars have not been detained one minute by snow."

The pages of the *N. E. Farmer* will probably be read by future generations, and it is a matter of importance that they convey correct information.

Snow, except the large drifts, is nearly gone, but the weather is dry and cool. We had some light showers the 12th inst., but it froze hard in the night. In the morning of the 13th the mercury fell to 20°, and it did not thaw in the shade during the day.

Robins and Blue-birds were seen here the 3*d*, and we have now a pretty full choir of vernal songsters. The season for making maple sugar appears to be nearly closed, and the bare fields, and pleasant mornings, remind the farmer that another busy season has arrived. L. VARNEY.

*Sandwich, N. H., 4 mo. 17th, 1856.*

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*For the New England Farmer.*

## POTATOES FOR PLANTING.

I notice in the agricultural papers that a difference of opinion still exists as to the relative value of large and small potatoes for seed. Most of the speculative writers on this, as well as other subjects, appear to have formed their opinions on the result of a single experiment. No wonder, then, that their experience leads to different conclusions. Every man of but slight observation knows that in some seasons, with weather apparently favorable, certain crops will be light, and the reverse in other seasons. These results will be further affected in different soils, and under the same treatment. Even in the same season, apparently in similar soil, and under the same treatment, wide results are noticed. It is no uncommon thing for the production of one hill of potatoes, for instance, to be double that of other hills in the same lot, with no apparent difference in seed, soil or treatment. Hence, no safe inference of a general rule can be inferred from a single experiment in the same season—much less when the experiment embraces two seasons. I am led to these remarks on reading a communication in the *Farmer* from Bridgewater, Oct. 22d, signed H.

From my experience and observation, I am convinced no certain inference can be formed of the relative value of seed of any kind, or of manure, or of treatment, from a single experiment. The result may be materially affected by numerous causes hid den or apparent. I do not think the mere selection for seed of large or small potatoes affords any test at all, without reference to the circumstances whether the small are unripe, late productions of a species of larger size, or the mature dwarfs of the same, or are the production from small or large seed for a series of years, or of one year only. The effect, if any, between large and small seed will not be fully developed at once. A series of experiments pursued for many years, by planting the small potatoes, raised from small seed, and large potatoes from large seed, will alone be of any value in deciding the question. Sixty or seventy

years ago, there was a species of potatoes generally cultivated, of a blue color, very excellent, but not large, though they yielded pretty well in the great number in a hill of small ones. Of course the larger ones were picked out through the winter for family use, leaving small potatoes for seed. For that, or some other reason, the crops became light, and but few produced large enough to cook. My brother, who occupied the farm on which I was brought up, commenced selecting his seed in the fall, when harvesting his potatoes, and other farm productions. He selected the largest of the blue potatoes for a series of years for seed, and planted no small ones. The result was, that in the course of fifteen years or more, these blue potatoes produced much larger crops, and much larger potatoes, instead of having the variety run down, as it is believed by many, all varieties will in that time. But another unexpected result followed. We all know that the over large potatoes of any variety are not of so good quality as those of a medium size. By selecting the largest, my brother necessarily selected those of inferior quality, and by raising from them, he not only got tubers of improved size, but of superior quality, and thus materially changed the variety, both for quality and productiveness. I have known the productiveness of corn materially changed in the same way; not in a single year, but in a long series of years, though the change in a single year was scarcely perceptible.

RUFUS MCINTIRE.

*For the New England Farmer.*

## ROAD-SIDE SHADE TREES.

FRIEND BROWN:—Are you not often forcibly struck at seeing or experiencing the comfort of some old shade tree on the road-side in your pedestrian walks or drives through the country? What, but a good old elm, ash, walnut or chesnut, gives grace and beauty to a farmer's dwelling? To the stranger, it attracts the eye and leaves pleasant recollections. To the scattered family in far off climes, what clustering reminiscences, identified with every leaf that unfolds itself. The music of the oriole, its ingeniously wrought nest hanging on the waving limb, like a reticule upon a lady's arm; the old swing, that chilled with fear, and dizzied the brain of innocent childhood; how like magic the mind rushes back to the old shade tree that waves its branches over the maternal, the ancestral home. Nature's knife cuts away no such revered tie. Time enshrines it, as the back-ground and picture of pleasant memories.

But I am forgetting my task. Farmers, landholders, all,—trees by the roadside add value to your property; to this you will not object. They add beauty to your home, and comfort to the traveller. The time and cost in planting, how insignificant on this small portion of your premises. Your own forest will furnish them all. The cherry is a rapid grower, almost sure to live. In a few years this would furnish fruit for the poor, and food for birds. Opposite your fruit orchards, to avoid shade, put out the maple, ash or walnut. We notice some have an idea of the ornamental, by misplacing forest trees inside of the orchard fence. This is the proper place for fruit trees, which should be set ten feet from the wall. Shade trees have a more becoming appearance outside the wall, and at such distance from it as to give shade to the road.

How charming the prospect in passing through the towns lying along the Connecticut river, with their lofty, shading elms. Two men and two days' work upon every farm, in planting forest trees, would add much to the rural beauty of the farm, the pleasure of the traveller, and very little expense for so praiseworthy an object. Friend B., can you not propose some plan of association for this object? You wield an efficient pen; allow us the pleasure to hear from you.

Yours truly, H. P.

*New York, April 21.*

REMARKS.—There—if that appeal, with all the delightful associations it has awakened, will not arouse every man, woman and child, *to plant a tree*, we know not what will. We are not all idle, friend P., nor forgetful of the comforts and charms of an old tree. Associations, as well as individuals, all over Massachusetts, and we hope, New England, are engaged in the good work of planting.

## MONEY AND MATRIMONY!

Every week, we are invited to publish advertisements of one sort and another, to raise money, or obtain a wife, in a manner not consistent with the principles upon which this paper is conducted.—Sometimes an important mechanical secret is to be divulged, at others medicinal, and now, with the cash enclosed, it is to help a disconsolate wight to obtain a wife! In *this way* we cannot do it. But *privately*, we would inform our unfortunate friend, he may, perhaps, get a little courting done by proxy, if all that he sets forth in his bill is correct. We want money, and we like matrimony, and are always willing to help an honest man to either in an honest way, provided he will put his own shoulders to the wheel and try to help himself. But, as we have often done before, we return the letter and money to L., and advise the writer to put on his "go-to-meeting-suit," and make a desperate adventure among the fair ones in his own proper person.

"There swims no goose so gray, but soon or late
'Twill find some honest gander for her mate."

The sentiment is just as good reversed, friend, so take courage, and "make an effort."

*For the New England Farmer.*

## HORSES AT CATTLE SHOWS.

MR. EDITOR:—Unwilling to train *in borrowed plumes*, and having been charged with writing the article in your paper of the 12th inst., on "Horses at Cattle Shows,"—I beg leave to disclaim entirely all knowledge of, or connection with said article.

Although I am an admirer of fine horses, in their proper places, I am not in favor of exhibiting *fast horses*, at our shows, or of trying their speed, either on the public ways, or in adjoining enclosures, on these occasions. The experience of the last year in Essex in this matter, should operate as a *veto* on all such movements. I forbear to say more, hoping that our exhibitions will continue to prosper, in the use of their sober and legitimate purposes.

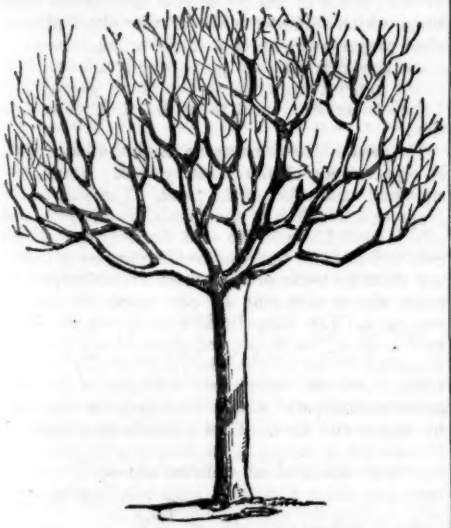
ESSEX, *Senior.*

## TRAINING AND PRUNING.

Much has been written and said upon this subject—enough, one would think, to satisfy all who have the work to do, to perform it properly. But such is not the fact, as persons of observation may see in every ride they take in the country. It is a severe loss to the farmer to purchase fifty or a hundred trees, plow and manure his ground, plant the trees and tend them with care for a dozen years, and then ruin them, or reduce their lives one-half; poor, mutilated, dying things, before they have arrived at the common age of maturity.

There is such a veneration for old customs, that men insist upon pruning in the months of March, April and May, and continue in the practice, though they constantly complain that their orchard "does not do well, and that *something is* the matter."

Two trees have grown up under our eye, standing within thirty feet of each other, both crooked, low-limbed, mis-shapen trees to begin with. Now, at the age of ten years, one of them, judiciously tended, is



A WELL-SHAPED TREE.

The tree itself appears far better than the idea given of it in this engraving. Its trunk is straight, all the limbs having plenty of room, and large and vigorous, while the top is compact, with a symmetry and grace which at once attract the beholder. When such a tree is full grown, its top may be travelled over with ease to gather the fruit, and with little danger to the person or to the tree itself. The main branches coming out as they do at nearly right angles with the stem, may drop their extremities to the ground without being injured, and are rarely broken by the wind. When this tree was purchased from the nursery, the first limbs came out *three* feet from the crown of the root—they now stand at nearly five feet, yet there is no wound to be seen where the first set were taken off. We have no doubt that apple trees bear more fruit, and are less liable to be broken, where they are trained with short stems. But if *cultivation* is important, they must be carried higher.

The tree represented below, was, to begin with, as handsome as the other; it has been cultivated and tended the same, but has been trained more in accordance with the old notions of pruning. It is evidently

A TREE WITHOUT GRACE OR SYMMETRY.

These trees were sketched by one of the best artists in this city, and give a fair but not exact representation. The first one does not appear so well as the tree itself, and the second is slightly caricatured.

We have often given our ideas of pruning, and cannot do more than to give merely an outline now. Never cut off a limb of more than half an inch in diameter in the months of March, April or May; but cut in June, October or November, and always cover the wound, even of small limbs, with gum shellac dissolved in alcohol. Cut out where limbs cross, or where they incline too many of them to the inside of the tree. Do not cut off the young side shoots and leaves in the growing season, as they are placed there to elaborate the sap, and will increase the growth of the tree.

As a general thing, *too much* pruning is done to young trees. If started judiciously, they need but little, very little trimming, annually, so that if the owner of a young orchard has an uncontrollable desire to use his knife, he had better supply his pockets with several pieces of soft pine wood, before he takes a stroll through his orchard. Prevention is better than cure.

## THE FARMER'S HOME.

We have really but few farm houses and farm barns that approximate that style of architecture or utility of arrangement so essential to pleasing effect and to the highest comfort and convenience of the occupant.

I would not urge the farmer to an extravagant outlay for a house to live in, but I would have him keep in view neatness of appearance, comfort and convenience.

Every one knows, who has them, what inconvenient houses and barns are; but once built, it is no easy matter to improve them; if ever undertaken, they are seldom put right. It is in building as in every thing else, always cheapest in the end to begin right.

Every man's house should be a *house* in the broad and best meaning of that word; neatness and order should be the presiding divinity of the place. This cannot be unless each part shall have a corresponding fitness to every other part.

The grounds should be more ample and better arranged than is generally common, admitting of such an arrangement of out-buildings as will add to the convenience and general appearance of the whole.

No farmer's house is a comfortable home if crowded to the line of the highway in front, or closely attacked by pig-styes and bird-lofts in the rear. There should be room, also, for ample shade. Sylva is the fair Goddess that sheds her choice blessings on him who leads a rural life, little less than Ceres, the annual draught from whose horn is so grateful.

The barns of the farmer should be constructed after the most utilitarian model. While it needs a combination of utility and nice taste to plan and construct a home that shall be worthy of the name, it requires not a less combination to construct a set of farm-barns. The health and thrift of stock will depend much upon the comfort and convenience of the stable arrangement. Facility for performing the labor in and about the barns will be greatly increased, by constructing every part only after the best model. Housing of manures is an important consideration with every farmer, and should not be overlooked in laying plans for farm buildings in which stock of any kind is to be kept.

In short, every thing about farm buildings should be commenced right from the foundation, if we would have what is really desirable, and that shall best subserve the purpose intended.—*Western Paper.*

## BUILDING CISTERNS.

Eight years ago, while building my house, I dug a hole seven feet deep, six feet in diameter at top, three feet at centre, sloping the bottom like the large end of an egg. The soil where made, mostly clay in composition. Used equal parts of water-lime and coarse, clean sand for covering. After it had dried, coated thoroughly with a white-wash made from cement to fill any cracks occasioned by the drying process. Laid three pieces of white-oak scantling across the top with a covering of two-inch plank matched together, and a trap-door to admit ingress for the purpose of cleaning it out as occasion required. Where cisterns are thus constructed, the first filling of water should be pumped out. After that it will be as soft as though caught in a barrel. It matters not what the soil is, if it but holds its shape till the mortar sets. I have seen them dug in a bed of sand with good success. It must not be allowed to freeze.

My cellar bottom is composed of the same material, with this difference: one part cement with two of very coarse gravel. I think five barrels of water-lime sufficient for a cellar 24 by 40 feet, one and a half inches thick of mortar. Make the bottom of the cellar a little convex. Put the cement on with a trowel. In a few weeks you have a bottom as hard as a rock. In hot weather throw on cold water and scrub off with a broom; the water will run off the edges into the drain, and you will have a sweet, cool cellar in the hottest weather. Observe the same caution as with the cistern, viz., keep out the frost.—*Rural New-Yorker.*

*For the New England Farmer.*

## A VISIT TO SIMPSON'S GRAPERY IN SAXONVILLE.

TALK AT A GREEN-HOUSE COLLATION.

MR. EDITOR:—While visiting a green-house grapery, during the past month, some interesting subjects were discussed relative to the physiology of the growth of the grape vine, and on the functions which different parts of the plant play, in their progress of growth and of fruiting. Some of these thoughts may not prove wholly uninteresting to the general farmer or to the grape grower, and I shall therefore report them for their consideration.

The great object of nature in the formation of fruit, is reproduction of the plant by seed. This is the strongest vital effort of the plant. The pulp of the grape and the flesh of the peach, plum, apple and pear is placed around the seed, not only as food for man and animals, but also for the purpose of inducing them to transport the seed to other spots of earth, where they may be cast upon the ground and grow. The winged thistle-seed, and the feathered seeds of the maple and pines, obtain their locomotion by aid of the wind, and the oily and nutritious nuts and acorns find a planter in the ever active squirrel, who plants thousands for one that he opens and eats. Thus this nimble animal, by his instinct, is forced to become nature's planter of forests of oaks and of walnuts, and some species, especially the red squirrel, rejoice in lugging away and planting the white pine cones.

Birds distribute the seeds of berries profusely over the plains, and aid their growth by a guano dressing as they drop them on the soil. The burr sticks to the wool of sheep, to the hairy coat of cattle, and to the clothes of man, and thus finds its means of gaining a new location and soil. The cocoa nut floats on the river and even on the sea, and is wafted to distant islands. Every plant has some method of sending its seed abroad. These facts must strike every observing mind as the provisions made by the Author of Nature for distributing his vegetable productions over the earth.

The seed—and what is it? It contains the embryo plant, and the nutriment required for its early development, its mother's milk in its most concentrated form; it is analogous to the egg of a bird, containing the embryo and the nutriment the young animal requires before it can shift for itself. The seed contains around the germ, what is styled by

botanists, its mucilage or albumen; around this is laid up in most seeds a quantity of starch, a substance readily changeable into gum, and then into sugar, by the action of the albumen, which forms, by chemical changes, the principle called diostase. In other plants an amygdalaceous substance takes the place of starch, and undergoes peculiar chemical changes in the process of germination. In the bean pea and in cucurbitaceous plants, such as the pumpkin, squash, cucumber and melon, it changes into organized cotyledonous leaves, as it pushes from the soil and meets the light. In cereal grains we have the mucilage in the chit, then the layer of starch mingled with cellulose, and around this a hard substance called gluten, containing a fixed oil in cells. This is more observable in the grain of Indian corn. This gluten, which is the last of the ingredients to decompose in the soil, furnishes ammoniacal products. The starch forms first gum and then grape sugar. The phosphates are all contained close around the germ in the chit or mucilage. All seeds are formed on similar principles, and there is a grand unity in their plan.

The seed of the grape is richly supplied with phosphates and with the alkalies, potash chiefly, with some soda. It bears also the organic nutriment of the embryo vine. The production of these little seeds, or grape stones, as they are called, is the most elaborate performed by the plant, and during the process, the grape ceases to swell, and becomes almost stationary in its functions of growth, so far as the eye can discover. Its whole energies are bent on perfecting of the seed. This accomplished, then the grapes undergo a sudden change, and begin what the cultivator calls the second swell of the fruit, when it becomes full of juices, which change by ripening into saccharine and aromatic syrups, tempting the palate of man. If, in out-door growth, there happens to come on a few rainy days, the grapes swell quite largely, but are not so sweet as if less liberally supplied with water. Hence, the judicious gardener takes the hint from nature, and wishing to produce more concentrated saccharine, and higher flavored juices, is sparing in his supply of water to the roots; and if he understands vegetable physiology, he is not guilty of the barbarism of plucking off the leaves from his vines, by which he would in part, at least, defeat the elaboration of the sap, which is forming the sweet juices of the grape. It is an error to remove the leaves under the belief that by so doing more sunlight may come to the bunches of grapes. It is on the leaves the sunlight must fall, to produce the proper elaboration of the sap. Every boy who has picked wild grapes in the swamps, knows that only sour grapes are found on branches that have lost their foliage. To pluck off the leaves from a plant, is analogous to the removal of the lungs of an animal, and the diminution of them is like the destruction of a portion of the lungs.

The circulation of plants was next discussed. By what power does the sap ascend in the stem?—Is it by capillary attraction? Is it by attraction of the buds? These were two of the old botanical theories. If by capillary attraction, allowing it to be equivalent to the production of a perfect vacuum, it can only raise the sap from 34 to 40 feet, and if it is assumed to be owing to the attraction of the buds, the same objection stands in the way, viz., that it will not account for the elevation of a column of sap from 100 to 200 feet in our tall trees and high climbing vines.

The sap must then ascend by a *vis a tergo*—or rather, a force from below,—and this force we find in the beautiful discovery of M. Dutrocht of *endosmose*, or internal impulse. If we tie a piece of bladder over the mouth of a small jar or cupping glass, open at the bottom, so as to make a false bottom to the jar by the membrane, and then fill the jar with a syrup of sugar, or any fluid denser than water, and attach an open tube to the neck of the jar, and then sink the jar to its neck in water, it is obvious that there is no difference of pressure between the inside and outside; still in a quarter of an hour it will be observed that the fluid rises in the tube, and will continue to rise until it overflows at its upper opening. Now this membraneous bottom is equivalent to the spongiole or the rootlet of the plant. But if we add a series of diaphragms in our tube, instead of obstructing the ascent of the liquid, they will each give it a lift, and so it will go on ascending to the highest part. In the stem of a plant are myriads of these crossing diaphragms, and each one of them tends to lift the sap upwards, while some of the lateral ones direct it to the glandular apparatus of the plant. The evaporation from the leaves continuously inspissates the liquid sap, and it becomes more and more *endosmetrical*, as it becomes denser by this process.

In winter and during the rest of plants, the sap in the roots becomes denser, and is ready with the return of warmth and moisture to absorb water and saline and soluble organic matters from the soil.—When the sap reaches the green buds, they swell and put forth their leaves; these leaves are acted upon by sunlight in such a manner as to effect the most marvellous chemical changes in the sap; carbonic acid gas from the air is greedily absorbed by the leaves, and oxygen gas is exhaled in its place. This carbonic acid gas, the poisonous breath of animal respiration, and the product of combustion of carbonaceous fuel, is changed into the proper juice of the plant,—forms gum, sugar, and many other of the ingredients we find in the fruit. In the chemist's laboratory, red hot potassium is required for the reduction of carbon from carbonic acid, but in the finer chemistry of plants, this decomposition is slowly and silently effected, without the dazzling red blaze of the chemist's experiment. Not only is the carbon of wood produced, but also an infinite number of hydorocarbonaceous substances, inimitable by the chemist, and organic substances which vegetable life alone can produce, are formed. So rapid is the absorption of carbonic acid gas by fresh and healthy foliage, exposed to full sunlight, that according to Dumas and Cahours, if a branch is inclosed in a glass globe, and a blast of air is driven through it by the bellows, all the carbonic acid is abstracted from the air by the foliage.

It was formerly supposed that plants produced carbonic acid during the night, and hence the idea of Virgil, that the evening shade is unfavorable to singers was supposed to be justified by this botanical view of the matter. But more exact researches have shown that plants do not produce carbonic acid, but only allow that which they absorb from the earth to pass their stomata or breathing pores of their foliage.

Years ago, while encamped in the unbroken forests of Maine, I often reflected upon this physiological theory of the older botanists and chemists, and

could not reconcile it with the fact, that, although encamped amid deep groves, and all covered with green leaves, we enjoyed the most perfect health. Modern researches have corrected this erroneous theory, and it is now known that the sum total of the action of a plant in confined air, is to remove its carbonic acid, and to replace it by pure oxygen. Hence, the fears of some persons, of injurious effects coming from the growth of plants in a sleeping-room, are unfounded.

In the absence of sunlight the leaves of plants droop, and they are said to sleep in the night. It is true they do not elaborate the sap, as they do under the influence of sunlight, but the circulation of the sap goes on still, both by night and by day. In the green-house, the lower temperature of night should be imitated by reducing the heat of the furnaces, and it is well to bring the temperature down to 50° or 60° F., while in the daytime it may be carried to 80°; and perhaps, if moisture is abundant, still higher. Heat undoubtedly hastens the circulation of the sap, while the sunlight causes the leaves to elaborate it. When there is no sunlight there is less necessity of heat.

When a plant has formed its fruit, it ripens it and the wood, and at length begins to form its buds, the foliage dropping from the stalks. When these processes are completed the work is all done, and if cold comes on, the vine takes its winter's rest. Or the grape-grower, like Mr. Simpson, substitutes a tropical dry season for a winter, and puts his vines to rest in midsummer. He has lately become more daring in his theories, and questions the necessity of any season of rest to the vine after it has made preparations for a new growth by perfecting its wood and preparing its buds, and thinks the vines may, by proper treatment, be at once set at work again. This theory, however, requires a practical verification before it should be adopted, for there may be processes necessary to the health of the vine which take place in its glandular apparatus during the period of repose. The experiment is one worthy of a careful trial, but it will require several years' time to test it. It may turn out that the period of rest is merely one of fallowing of the soil about the roots of the vine. If this is the case, and the plant itself needs no more rest, then it will be easy to apply the matters required in the soil, so as to have all ready in a moment, that four or five months' fallowing would produce. It would be practicable then to have grapes ripening every month in the year, without a very great number of vines. Green-house culture is destined to become more than a mere expensive luxury. Window glass can now be produced as cheap as shingles, and iron sashes may be made at a low cost, so that good and permanent green-houses may be constructed, in which the most desirable vegetables and fruits may be grown in winter as well as in summer, and to an extent far beyond that which has thus far been attained.

By having a number of green-houses connected, it is possible to economize the heat of the fires, by passing the heated air from one room into the other, and employing graduated temperatures in them all; and by having a sufficient number of rooms, to raise large crops, the constant employment of several gardeners and laborers in their management could be afforded.

There is room for improvement in the construction of green-houses, and in rendering them less liable to the accidents of frost in winter, and probably improvements may be made in the embankments, and in heating the borders. These, however, are questions to be considered by practical gardeners, rather than by the chemist and physiologist.

C. T. JACKSON, M. D.,
STATE ASSAYER, &c., 32 SOMERSET STREET.

*Boston, May* 1, 1856.

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*For the New England Farmer.*

## THE FARMER'S LIFE.

BY H. D. WHITE.

I love the farmer's quiet life—
His peaceful home devoid of strife,
With sweet contentment blessed;
I love the virtues of his heart,
Which peace, and joy, and love, impart
Around his humble rest.

I love the scenes of social mirth,
That brighten round his evening hearth,
With joy unmixed, replete;
Where friendship's smile, and love's sly leer,
Are seen through joy's transparent tear,
And TRUE friends only meet.

I love the labor and the toil,
That clothe with beauty Freedom's soil,
Where despot never trod!
And where each task, from turmoil free,
Great God, is sanctified by Thee,
And consecrates the sod.

I love the bloomy hills and dales—
Their healthful winds and odorous gales,
Untainted by disease;
I love the tales and legends old,
By white-haired sires at twilight told,
'Mid scenes of shadowy ease.

I love whate'er the seasons bring,—
The flowers that blush—the birds that sing,
Eve's low Æolean breeze,—
The vernal smiles—the Summer's charms—
The Autumn's fruits—the Winter's storms—
All charm in their degrees.

*Windham, Me.*, 1856.

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*For the New England Farmer.*

## PLASTER OF PARIS.

SIR:—I am aware that gypsum or plaster of paris is extensively used by farmers throughout the United States, and in Great Britain. Our island abounds with it, in almost every creek and harbor, and yet none of our farmers use it in any shape! probably, they do not know its value, or how to apply it to the soil. Will you or some of your correspondents be kind enough to furnish the following information respecting its use and application?

1st. Is it generally used in its raw state, or burnt into lime?

2d. What kind of soil would be most benefited by its application?

3d. Is it mixed with compost and plowed in as a fertilizer?

4th. What is the best time to apply it to the soil for grass?

5th. What is the average cost of the mills used for grinding it?

A SUBSCRIBER.

*North Sydney, Cape Breton, April* 12, 1856.

P. S. Some plaster is white, and some light blue: the latter is the hardest, which is the best?

## THE GARDEN.

Every farmer, every mechanic, in short, every individual of whatever standing or profession, should have a garden. There are few who are so circumstanced as not to be able to procure land for this purpose. If a farmer, owning your hundred or two hundred acres of land, you can of course devote as much of your premises to the cultivation of vegetables, fruits and flowers, as your preferences may suggest, or you can have your front garden, your flower garden, and your garden for the cultivation of the more substantial productions; and you can have each so arranged and managed as to subserve the purposes of both ornament and use. There is nothing derogatory in this business, even to the loftiest intellect. Let those who cavil at this assertion, and look upon gardening as a plebeian vocation, look at Domitian pointing exultingly to the cabbage he had cultivated,—at the immortal Cincinnatus, called from the peaceful cultivation of his three *jugera* of soil, to command the armies of imperial Rome; at Washington and Jefferson, Calhoun, Webster, Clay and Van Buren, as well as many other illustrious warriors, philosophers and statesmen, both of the past and present day.

The mechanic who is tied down to his seat or bench during the long and wearisome day, and whose sedentary avocation renders a certain degree of active exercise essential to health, will find the garden an excellent theatre for the relaxation both of mind and nerves. Here pleasure and the pursuit of health may be combined with profit, and the increase of blessings rendered equal, or nearly so, to that of his "working hours."

To every sedentary person, whether mechanic or lawyer, minister or "man of pleasure," we would say, unhesitatingly, plant a garden. Have some vegetable growing upon which you can bestow your hours of unoccupied time, your periods of leisure and lassitude, and thus escape that terrible *ennui* which is ever the cause of the idle and unoccupied. No man can be happy or healthy without some employment—something to stir his blood and send it in healthful currents through his veins. The more open and regular this exercise, the more healthy and happy he will be.

> ——"Ye fostering breezes, blow!
> Ye softening dews, ye tender showers, descend!
> And temper all, thou world-reviving sun,
> Into the perfect year! Nor ye who live
> In luxury and ease, in pomp and pride,
> Think these last theme: unworthy of your ear;
> Such themes as these the rural Maro sung
> To wide-imperial Rome, in the full height
> Of elegance and taste by Greece refined.
> In ancient times the sacred plow employed
> The kings and awful fathers of mankind."

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RANDALL & JONES' HAND CORN PLANTER.—The reader will find an advertisement concerning this implement in another column. We first heard of it, standing in the midst of the most beautiful field of corn that we saw, in the autumn of 1854. It was on the farm of SOLON CARTER, Esq., of Leominster, who said the field was planted with this machine, and that he considered corn dropt close, better than to have the kernels spread apart. The doctrine sounded strange to us, but on inquiry we found many people agreeing with Mr. Carter. Last year we dropt our corn close, and shall continue to do so, liking the plan better than the old practice.

We find the following letter from Mr. Carter, among other testimonials of the implement.

*Leominster, Jan.* 24, 1856.

I used one of Randall & Jones' Corn Planting Machines, for dropping the corn on two acres of land, newly broken up, covering it with the hoe. I think it would have covered it sufficiently without the hoe, as I used it to plant half an acre, on which the hoe was not used. This came up well, and more even as to number of stalks in the hill, than common hand dropping. The general objection made to the machine, that it leaves the corn too close together, is not, in my opinion, an objection, but an advantage, as the rows can be cultivated nearer together than otherwise; it is also less work to hoe with the corn planted close than with it spread, especially where the land is weedy.

SOLON CARTER.

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*For the New England Farmer.*

## DOUBTS AND DIFFICULTIES.

MR. EDITOR:—I have read with much interest the report of your Legislative Agricultural Meetings, as published in the *Farmer*, but as yet with more amusement than edification. Why is it there is such a diversity of opinion entertained by those of equally high agricultural attainments on almost every subject under discussion? Their opinions, whether correct or otherwise, are widespread, and thousands here in N. H. read the weekly reports of their doings in quest of information. But who can know the truth when doctors disagree? One says that peat or meadow muck is the *only* substance to be depended on to renovate our farms and bring them back to their primitive productiveness. Another says *it is valueless*, or not worth the trouble of drawing—compost, stable-manure, lime, plaster of paris, guano, &c., &c., all have their advocates and opponents relative to their comparative value.

Now, Sir, in charity, I believe all are right, or nearly so, and the whole difference arises from the diversity of soil they cultivate or the different methods of applying the manure. Unlike the broad prairies of the West, our N. E. farms, and even fields of the same farm, differ materially in soil, and require different cultivation. We are told by some, that we should bury manure as deep as possible with the plow, and by others that we should spread it on the surface, to produce the best results. Now we know that both cannot be right, relative to the same piece of land, and yet they may be as to different soils. The different kinds of soil even in N. E. are not so numerous that there may not be some established method for the cultivation of each, or at least some undeniable facts as starting points from which we may improve, and without which we seem to be groping in the dark, or sailing without chart or compass.

Agriculture, although the first, best, and noblest employment of man, is yet but imperfectly understood. Chemists have done something to promote its objects by informing us of the constituents and food necessary to promote the growth of plants, but have left us nearly in the dark in relation to the best method of supplying or applying the same.—That knowledge, with numerous other objects of inquiry, can be gained by no other means than by practical and experimental farmers, for which we look to your agricultural meetings with much solicitude. If we, as working farmers, can have new and well demonstrated facts, we should draw our own inferences, and if we should err, it would only prompt us to more intense inquiries. The truth that the gases arising from the decomposition and putrifaction of manure is the cause of all vegetation, as demonstrated by Sir Humphry Davey, is truly valuable; at least it has been so to me. It has taught me the effect of manure on vegetation, and—

*First*, that it need not of necessity come in contact with the earth or roots of the plants.

*Second*, that the exhalations arising from it and imbibed by the plants is the true cause of their growth.

*Third*, that the frequent stirring the earth around the plants has the same effect as uncorking a new set of bottles.

*Fourth*, that manure spread on the surface loses much of its fertilizing properties before the plants come up, or before they are of sufficient growth to imbibe them.

*Fifth*, burying it deep is similar to keeping the bottles continually sealed.

*Sixth*, land highly charged with manure, if plowed in the fall, should be plowed so deep as to bury all the manure, that the frosts may seal up the gases and keep them for use the ensuing summer.—These are but few of the inferences from the experiment of Sir H. Davey.

Now it is very desirable that some of your wealthy and intelligent Massachusetts farmers should make some such experiments as the above. They would confer a great favor on the whole farming community. They have means and leisure, and *can* do it.

I would add, that taking the hint from Sir H. D., I tried the same experiment with plaster of paris in my corn field, with precisely similar results; that is, setting the plaster in dishes under the hills in the field promiscuously, where there had been no other plaster used.

Yours respectfully, H. S. P.

*Orfordville, N. H., Feb. 15, 1856.*

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*For the New England Farmer.*

## PEARLASH.

MESSRS. EDITORS:—Your chemical friend of January 5th does not give the whole process of manufacturing pearlash, and as I am somewhat familiar with the whole matter, I beg leave to offer the following:—What "Chem." calls pearlash, is only *scorched salts*, and are of a greyish color. This process of heating them in the oven, only burns out the coarse and lighter impurities, and leaves them in a more condensed and heavier form. Another process is still required, to separate their impurities from the pure salts, or pearlash of commerce. Chem's. pearlash, or what I call scorched salts, are dissolved in water, when the impurities will settle at the bottom, which they would not do in the black salts, because they were too light. I mean the impurities were too light. This liquid is now carefully drained off and evaporated, or boiled to dryness, and is called *white salts*, and is, of course, in a purified state. These salts are again put into the oven, such as Chem. describes, and heated until the oven appears to be full of sparks of liquid fire, such as comes from the blacksmith's forge, just before the iron melts; it is now taken out and cooled off, and is ready for market, and is truly white as snow itself. M. S. WOODWARD.

*Bath*, 1856.

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## ACID IN THE SOIL.

The presence of free uncombined acids in the soil, affords one of the most insuperable barriers to successful and profitable cultivation by which the efforts of the farmer can possibly be opposed. How these acids act, is sufficiently explained by Mr. Ruffin, in his essay on "Calcareous Manures." The presence of acids, he says, "by preventing or retarding putrefaction, keeps the vegetable matter inert, and even hurtful on cultivated lands; and the crops are still further jured by taking up the acids with their nutriment. A sufficient quantity of calcareous earth, that is, earth where *lime* is present mixed with the soil, will immediately neutralize the acid and destroy its powers; the soil, released from its baneful influencees, will be rendered capable, for the first time, of exerting the fertility which it really possesses. Calcareous earth has also the power of altering both the *texture* and *absorbency* of soils."

On all lands where there is a growth of red sorrel, acids of some kind abound in a free and uncombined state, and it is only by adopting some emendatory powers of culture, or by the application of neutralizing substances—such as *lime, ashes*, &c.,—that they can ever be rendered fertile in the production of valuable crops.

On lands where sorrel seemed determined to overpower every other plant, we have eradicated it effectually, by the use of lime and ashes, but at the same time giving the soil a more generous manuring, and more careful cultivation with the hoe. We have, therefore, no doubt of the correctness of the statement by Mr. Ruffin, who is a very careful and experienced cultivator himself.

It is important that the farmer observe very closely what the *natural* prevailing product of his soil is, as this will indicate more correctly, perhaps, than anything else, what sort of a corrective is required. If sorrel greatly abounds, or wormwood, or the daisy, or bulbous-rooted grasses, state the fact at the farmers' club, and discuss it, drawing out the experience of each, or, if necessary, get an analysis of the plant, and learn what the character of the soil is in which it flourishes so well; then, perhaps the proper correctives may be applied.

## APRIL 19, 1775, AND APRIL 19, 1856.

WRITTEN FOR THE ANNUAL FESTIVAL OF THE CONCORD FARMERS' CLUB, APRIL 19, 1856.

Four score years and one have past,
And this the natal day,
Since Concord heard the war-cry blast
For battle's fierce array:

Since o'er these hills, or through the vale
When April's sunshine beamed,
As sire to son has told the tale,
Old England's banner streamed.

It crossed the Atlantic's surging tide
At tyranny's command,
To cast its shadow far and wide
O'er this our native land.

It came with drum, and squeaking fife,
And bristling bayonets bright,—
With men equipped for bloody strife,
Freedom's young bud to blight.

On war-clad steeds, with swords unsheathed,
Their leaders rode in pride;
Nor deemed that here in Concord breathed
Bold hearts to check their stride.

Our fathers left their peaceful toil,
To meet the invading band,
To free their hearths, their homes, their soil,
From tyranny's rude hand.

And bade them hurl that banner down,
Nor plant their standard here;
We serve no king, we own no crown,
Nor earthly monarch fear.

The conflict of that glorious morn
Yon monument shall tell
To generations yet unborn,
Of those who fought—who fell.

That struggle o'er, these fields are ours
To plant, to sow, to till;
They teem with fruit, they're bright with flowers,
And spacious granaries fill.

In valleys low, by hill-side steep,
Or where the plains extend,
Are grazing herds, or bleating sheep,
Or ripening harvests bend.

Ascend yon hill with verdure clad,
Or crowned with towering trees;
Not the blest view that Moses had
Could more delight or please—

When on the mount the patriarch stood,
Led by Jehovah's hand,
He saw beyond old Jordan's flood,
Canaan—promised land.

So from our Pisgah's heights we view,
Where'er the eye may roam,
Bathed in the sunlight or the dew,
The farmer's happy home.

His acres broad around him lay
In furrow or in sward,
His toils are hard from day to day,
But—Plenty's the reward.

With toil-worn hands, by sweat of brow,
The Primeval Fiat said,
"Go till the earth, its surface plow,
By labor earn your bread.

For thy transgression, this the doom,
From Paradise to go,
Where Eden's flowers perennial bloom
And fruits uncultured grow.

Thistles and thorns the earth shall yield,
Dust shall return to dust,
Cursed for thy sin is every field—
But in my promise trust.

Earth shall bring forth her sure increase,
Seed time nor harvest fail,
I've arched in heaven my bow of peace
Where watery vapors sail."

Nor yet alone was Adam doomed
His Paradise to leave;
Where'er he went the flowers still bloomed,
And with him wandered Eve.

Her daughters fair are with us here,
We have them by our side,
Our cares to sooth, life's paths to cheer,
As matron, sister, bride.

Home is not home where they are not,
The garden is a waste,
The hearth a cold, unsocial spot,
Unless by woman graced.

In every varying scene of life,
Where'er our lot be cast,
Woman as mother, sister, wife,
Is earliest and last. S. M.

*Concord, Mass., April 19, 1856.*

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*For the New England Farmer.*

## THE AMERICAN GOLDFINCH.

There is a peculiar trait in the habits of this bird which I have never seen mentioned by any Naturalist, and am at a loss to conceive why it should have escaped their notice, when such habits digress materially from the general custom of all other birds. I allude to the time of their breeding. It is a fact which I have for many years noticed, that these birds do not commence building their nests until the month of July, while many kinds, who remain with us through the whole season, have reared their first brood, and have commenced laying their eggs for the second. By careful observation and study with regard to this fact, I am led to the conclusion that, although the old birds find a sufficient quantity of food at all seasons of the year, and the kind that is adapted to their wants, they would be unable to find in spring or early summer those new and milky seeds which are the necessary food for their young, for those seeds that have escaped vegetation are exceedingly hard and dry by age, and would be highly injurious to them as food. Had they been constructed with a pouch, as some birds are, into which the hardest grain or seeds may be received, and in a short time softened by the chyle formed in such pouch or stomach, as is the pigeon's, they might commence their breeding earlier in the season, and not delay the time until a certain period arrives.

In the study of nature one is surprised to see the beauty and harmony that exists through all the works of Him who is the contriver of them all.—How wonderful it is that the Goldfinch, by a law of their nature, should not be allowed to bring forth their young before, nor after, but at the very time when those seeds used by them for food have commenced their formation, or have passed into the milk, in which state they are more easily dissolved in their stomach, and at which time an abundant supply may always be found.

They sometimes feed their young on the pulps of barley, oats, and even Indian corn; but their principal and favorite food is the seeds of the autumnal hawk-weed and thistle.

They usually build upon some sapling, preferring the Maple to any other; and although they select so clean a tree, and build so neat a nest, they are exceedingly filthy in and around it, removing none of the excrements of their young from the time they are hatched till they have flown. One would hardly believe, on seeing it, after they are fledged, that this delicate looking bird that daily washes in the cleanest water, that gently runs over the pebbles in some brook, reared their young in such a foul nest. I do not know of any bird that breeds amongst us, so filthy at home, nor of any when abroad who appear so clean, or who seems to take so much real pleasure in washing. This habit of their frequent washing seems not to have been noticed by Mr. Wilson, but Mr. Audubon asserts that "they seldom alight on the ground, unless to procure water, in which they wash with great liveliness and pleasure."

During spring and the first part of summer, they rove about in small flocks, and in July will assemble together in considerable numbers on a particular tree, seemingly for no other purpose than to sing; these concerts are held by them in the forenoon of each day for a week or ten days, after which I have noticed they very soon commence building their nest. I am inclined to believe this is their time of courtship; and that they have a purpose in thus assembling together other than that of singing. If, perchance, one is heard in the air, the males utter their call-note with very great emphasis, particularly if it is a female; and while in her undulating flight she describes a circle preparatory to alighting (as is always the case,) they will stand almost erect, move their heads to the right and left, and burst simultaneously into song. They do not quarrel, as male birds of other species usually do, at such times, nor do any of them manifest in the least degree a preference to either of the females; when they disperse, two or three leave the tree at the same time flying wide apart, or each bird taking a different direction.

The nest of this bird that is now before us, is, as I have already remarked, usually placed on a sapling of the white maple, and built almost entirely of hemp, tow or wool, and lined with the softest material. Its exterior diameter is three inches, its interior diameter is 1¾ inches, and its depth is 1½ inches. The female usually lays four and sometimes five eggs of a uniform bluish white; they are eleven-sixteenths of an inch in length, and seven-sixteenths of an inch in diameter, and they raise but one brood in a season.

Some years the Goldfinch is a resident of the State of Massachusetts through all the seasons, and in winter a flock is often seen flitting from one field to another in search of food, of which in some instances they obtain a small allowance, as the deep snows sometimes bury, or the frozen rains encase the stalks of weeds and grasses, which contain the food upon which they live.

Although a small bird, they are remarkably hardy, enduring the rigors of winter, and sporting over the snow as blithe and contented as when they bask in the sun, or bathe or plume their feathers in the month of June, and it really seems rather than otherwise to them a season of pastime; but the cold winds which drive the snow from its northern home, brings with them their most dreaded enemy; he perches upon some post in the fence, or topmost branch of a tree, from which he can detect the least moving object within scope of his vision, and while the Goldfinches are busy in gleaning for food in a variety of positions, unconscious of an enemy about them, the "Butcher bird" drives in their midst, striking his victim and bearing him off to the nearest tree; at this the whole flock is alarmed and rise in the air, flying in all directions, not knowing which course to take, while in the confusion small detachments are formed from the main flock who remain separate, until in subsequent time, they meet the same or some other party. A. F.

*Danversport*, 1856.

## GOULD'S MURIATE OF LIME.

We have made some experiments with this manure, on wheat, and with fine results. Since that time it has been considerably improved by the addition of liquid night soil—the component parts of this manure are all good. Below we give a letter from a gentleman who has tried it.

MR. JAMES GOULD:—I take the present opportunity to acknowledge the receipt of a barrel of your muriate of lime, about the middle of Aug., through the agency of C. Young & Co., Boston.

Owing to the lateness of the season, and the drought which followed the long rains in July, a fair trial of its merits could hardly be expected. Yet the result of the experiments made with it was highly satisfactory. I had a field of clover, from which I had already taken two crops, that season. Upon four square rods of this field I applied, as a top-dressing, about 40 pounds of muriate of lime. The effect produced, occasioned much surprise, for, where the fertilizer was applied, there the growth of clover was heavy, rank and dark green; exhibiting a striking contrast between that portion which was top-dressed, and the remainder of the field which was not. I thought at the time, that this third crop which was fed off, was equal to the second crop which was cut.

I tried this fertilizer upon different kinds of vegetables, and in one instance, side by side with Mapes' Superphosphate of Lime, upon a few drills of ruta-bagas, I could not perceive any difference in the result, though the yield from these drills so manured was greater than from the rest of the field.

I think that this muriate of lime must be a valuable manure. Convinced by the result of these experiments, I intend to top-dress my grass lands and clover fields with it the next spring.

Yours with respect, W. F. WHEELER.

*Grafton, Nov. 22d*, 1855.

VINEGAR ANIMAL.—Huc, in his travels in China, gives a curious account of the "Vinegar Animal," a polypus found in the Yellow Sea, which is placed in a large vessel filled with fresh water to which a few glasses of spirits are added; and, after twenty or thirty days, this liquid is transformed into excellent vinegar as clear as spring water, very strong, and of a very agreeable taste. Additions of pure water, without any more spirit, are all that is necessary to insure a perpetual supply. Like other polypi, it propagates from a detached limb. The formic acid of ants, and the exudations of the slimy grub which feeds on our pear leaves, contain vinegar.

## RURAL HOMES.

We have taken considerable pains, and incurred some expense, in laying before the reader a variety of styles of dwelling-houses, and the outbuildings which usually surround them. The wide circula- of this journal demands this variety, because it goes into the hands of all classes of our people, each of which may find something in it to meet its general wants. The architectural rules which have from time to time been given, are from the best works on the subject which our country affords; and if they have not always met the exact wishes of the person building, they have, at least, presented a number of views of the case, and enabled him so to mingle them with his own, as to produce something near the desired result.

It is not easy to say what shall be the architectural style of a dwelling—what pitch its roof, how high its posts, what point of the compass its front shall face, or what ornamental work it shall receive, because every locality in the country requires something appropriate to its own position and its general surroundings. A square brick house, in the country, with contracted gables and eves, and standing in the midst of a beautiful grove, would strike the most unobserving as sadly out of taste, and a blotch upon the natural objects about it. A correct taste may build in such a spot so that there would be harmony between the buildings, the location and the immediate scenery, upon which the eye would dwell with pleasure, and nothing but agreeable emotions be excited in the mind. This taste we may greatly improve by attention and cultivation. To this end we make these suggestions and present our engraving.

The appearance of the rural homes of New England has greatly changed during the last fifty years,—and changed for the better. We are told that forty or fifty years ago there were two classes of farm houses prevalent, and that he was a bold innovator who broke away from the style which had been adopted and sanctioned by almost universal consent. One of these styles was a large two-story square house, with two front rooms, with a front door between them, but no hall through the house,

a large kitchen back of these rooms, and a bed-room at its end. The chambers were arranged pretty much like the rooms below. One of the front rooms, that on the south corner, the kitchen and the bed-room, were usually finished and plastered, but often without paper or paint. In hundreds of cases, the remaining portions of the house were left untouched either by plane, trowel or paint-brush,—a monument of folly, and a verification of the fact, that the builder did not count the cost before he began. Some of these houses remain to this day, the most dismal and dreary looking habitations we have. The traveller, as he passes, may see through them in every direction; for those who erected such things were quite sure not to build where trees stood, or if any were there, to cut them down.

The other style was the less pretending, cheaper, and yet more comfortable and convenient one-story house, with a sitting-room on one corner, a small bed-room behind it, a good-sized kitchen on the other end of the house with a bed-room, and a small sink-room behind the chimney. In both styles the chimney stood in the centre, occupying a goodly portion of the whole area, and containing bricks enough to build a modern fortification.

At present, we believe both these styles are abandoned as the peculiarities of a by-gone age.—It is found in this, as it is in other things, that a careful study of the matter will enable us to construct a good looking, convenient, and even ornamented dwelling, at as little cost as one of the ghastly, unfinished castles of which we have spoken.—The whole matter of building is now reduced to so much of a certainty, that one may see his home in advance,—first, every stick of timber that is to compose it, and then in perspective. He may have his plans and estimates, and know, to a dollar, what his structure is to cost, as well as the farmer can give the cost of cultivating an acre of corn. And this every person building should do, and will find it an item of economy in the end.

It was our intention to speak more of *the surroundings of the house* than of the house itself,—but that must be left for another time.

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HAY COVERS.—*Every Farmer his own Manufacturer.*—Take a piece or more of yard wide unbleached cotton sheeting, that can be bought for 7 to 8 cents per yard, and tack it up on the sunny side of the barn or board fence. Then prepare the following mixture, namely:—For one gallon of linseed oil, add about two pounds of beeswax, to be simmered together, and when taken from the fire, add about a quart of Japan. When it is cold, it should be about the thickness of paint. If too thin, add more wax, and if too thick, add more oil, then paint the cloth over, on one side only, with a common painter's brush, and after drying a day or two, take it down and cut it into squares; then pick up stones of about 6 or 8 ounces each, and get the females of the family to sew one into each corner, and the thing is completed. It would be an improvement to enclose the stones in a small bag and suspend them a few inches, which would be thought very little more trouble in so good a cause. No hemming the selvages is necessary. Cast-iron weights of 6 ounces each would cost about one cent apiece, but it is doubtful whether they would answer a better purpose than stones. Every farmer should supply himself with these covers *at once*, as by and by he will be too busy to attend to this matter. The immense losses sustained last year, by wet weather, should admonish him of its utmost importance. There is the best authority for stating that the county of Worcester alone, which produces upwards of 145,000 tons of hay annually, would have saved $20,000 last year if the farmers had been supplied with these hay covers.—*Hampshire Gazette.*

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## THE FARMER A MAN OF TASTE.

But the farmer of to-day should be *not only* a thoroughly educated man, and possessed of sound accomplishments; he should be pre-eminently a man of fine taste. He is an in-dweller of Nature's Temple, and is every where surrounded by the beautiful creations of Art Supreme. Here he may take lessons from the choicest pencillings of a perfect Master. In matters of taste, order and neatness, the American farmer need be second to none; and these qualifications should be manifested in all his operations.

When I see a farm laid out without regard to order or system, the fields taking shape as the convenience of the moment might dictate, I conclude that the owner has never studied taste or economy. When I see the fences of a farm overgrown with bushes, briars, weeds, etc., it is quite clear to me that the man who *"stays"* there has very little taste, so far as his business is concerned.

When in passing the domain of a large farmer, I find his spacious dwelling and his extensive barns and stables, side by side—door-yard and barn-yard in close juxtaposition—the latter odoriferous of its fertilizing contents—I at once see that with all his acquisitions, the proprietor has neglected to store his mind with a little *humanizing taste*—a few ideas and principles of order and propriety—which would have put his barns and stables, with all their unpleasant accompaniments, back, in rear of the dwelling, where they belong, giving the latter prominence and character, showing that the farmer and his household believe themselves superior to the beasts of the stall, and are unwilling to live virtually in their midst.

When I see a door-yard overgrown with wild grass and weeds, the fence shabby, no flowers or trees about, I know at once that there is no taste there, in doors or out.—*Betts' Agricultural Address.*

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CORN STARCH.—Another large manufactory of starch from Indian corn, is about to be established in the Scotia Valley. A company at Columbus, Ohio, it is reported, are about to put up buildings and machinery sufficient to work up six hundred bushels of corn a day. Such use of corn will do less mischief in the world than some other modes of using it, largely practiced in Ohio.

## CLEAN YOUR CELLARS.

By a beneficial arrangement of Providence, gases and odors most prejudicial to human life are lighter than the air which surrounds us, and as soon as disengaged, rise immediately to the upper atmosphere, to be purified, and then returned to be used again.

The warmer the weather, the more rapidly are these gases generated, and the more rapidly do they rise, hence it is, that in the most miasmatic regions of the tropics, the traveller can with safety pursue his journey at mid-day, but to do so in the cool of the evening, or morning, or midnight, would be certain death.

Hence also the popular but too sweeping dread of "night air." To apply this scientific truth to practical life in reference to the cellars under our dwellings, is the object of this article.

In the first place, no dwelling-house ought to have a cellar. But in large cities, the value of the land makes them a seeming necessity, but it is only seeming, for during many years residence in New Orleans, we do not remember to have seen half-a-dozen cellars. But if we must have them, let science construct them in such a manner, and common sense use them in such a way as to obviate the injuries which would otherwise result from them.

The ceilings of cellars should be well plastered, in order most effectually to prevent the ascent of dampness and noisome odors through the joints of the flooring.

The bottom of the cellar should be well paved with stone; cobble stones are perhaps best; over this should be poured, to the extent of several inches in thickness, water lime cement, or such other material as is known to acquire in time almost the hardness of stone; this keeps the dampness of the earth below.

If additional dryness is desired for special purposes, in parts of the cellar, let common scantling be laid down, at convenient distances, and loose boards be laid across them for convenience of removal and sweeping under, when cleaning time of the year comes.

The walls should be plastered, in order to prevent the dust from settling on the innumerable projections of a common stone wall.

Shelves should be arranged in the centre of the cellar, not in the corners, or against the walls; these shelves should hang from the ceiling, by wooden arms, attached firmly before plastering, thus you make all free from rats.

To those who are so fortunate as to own the houses in which they live, we recommend the month of June as the most appropriate time for the following recommendations.

Let everything not absolutely nailed fast, be removed into the yard, and exposed to the sun, and if you please, remain for a week or two, so as to afford opportunity for a thorough drying.

Let the walls and floors be swept thoroughly, on four or five different days, and let a coat of good whitewashing be laid on.

These things should be done once a year, and one day in the week at least, except in mid winter, every opening in the cellar, for several hours, about noon, should be thrown wide, so as to allow as complete ventilation as possible. Scientific men have forced on the common mind, by slow degrees, the importance of a daily ventilation of our sleeping-apartments, so that now none but the careless or the most obtuse neglect it; but few think of ventilating their cellars, although it is apparent the noisome dampness is constantly rising upwards and pervading the whole dwelling.

Emanations from cellars do not kill in a night, if they did, universal attention would be forced to their proper management, but it is certain, from the very nature of things, that unclean, damp, and mouldy cellars, with their sepulchral fumes, do undermine the health of multitudes of families, and send many of their members to an untimely grave; especially must it be so in New York, where the houses are generally constructed in such a manner, that the ordinary access to the cellar, for coal, wood vegetables, etc., is within the building, and every time the cellar door is opened, the draught from the grating in the street drives the accumulation of the preceding hours directly upwards into the halls and rooms of the dwelling, there to be breathed over and over again, by every member of the household, thus poisoning the very springs of life, and polluting the whole blood.

With these views we earnestly advise our city readers, as a life-saving thought, in the selection of a dwelling for the ensuing year, to give ten per cent. more for a home which has a model cellar; you will more than save it in doctor's bills, in all probability, to say nothing of taking pills, and drops, and bitters, and gin, from one month's end to another.—*Hall's Journal of Health.*

## THE POWER OF IMAGINATION.

That mysterious influence exercised by the mind over the body, is well illustrated in the following case, contained in Dr. Warren's excellent treatise on the "Preservation of Health:"

"Sometime since a female presented herself to me, with a tumor, or swelling of the sub-maxillary gland of the neck. It was about the size of an egg, had lasted two years, and was so very hard that I considered any effort to dissipate it by medicine to be vain, and advised its removal by an operation.

"To this, the patient could not bring her mind; therefore, to satisfy her wish, some applications of considerable activity were directed to be made to the part, and these she pursued a number of weeks without any change. After this she called on me, and with some hesitation, begged to know whether an application recommended to her would, in my opinion, be safe. This consisted in applying the hand of a dead man three times to the diseased part. One of her neighbors now lay dead, and she had an opportunity of trying the experiment, if not thought dangerous. At first I was disposed to divert her from it, but recollecting the power of the imagination, gravely assured her that she might make the trial, without apprehension of serious consequences. Awhile after she presented hersel once more, and, with a smiling countenance, informed me she had used this remedy, and no other; and on examining for the tumor, it had disappeared."

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ANTIQUITY OF COW TALK.—"Koh! koh! koh!" ejaculates the milkmaid when she calls her cow. It is somewhat remarkable that the Persians, more than two thousand years ago, used the very same word for the same purpose—to call their "moolies."

*For the New England Farmer.*

## RURAL ECONOMY OF THE BRITISH ISLES—No. 12.

### WESTERN COUNTIES.

SOMERSET, GLOUCESTER, MONMOUTH, HEREFORD, SHROPSHIRE AND CHESTER.

If the southern region is the zone of the cereals, and the eastern counties the chief domain of the four-course system, the character of the western counties is grass, that primitive wealth of England. The rural prosperity of these counties is of old standing. At one time, the entire agricultural wealth of England was confined to grass, in the western districts and part of the central, and to the wheat lands of the south-eastern counties; the rest of the island was nothing but heaths, marshes and mountains. Later, however, these wheat lands have beeen surpassed by the light lands, worked by the four-course rotation; but the grass lands have maintained their old superiority. The rain, which falls in the west of England, is three times more than in the east; and, perhaps, the grass lands of western England are nourished by the saline particles, which the sea breezes bring, as well as by abundant rains.

Now-a-days, this grass country, though enriched by manure, which successive generations of cattle have deposited upon it, begins to lag behind. Agriculturists, of the present day, are not very favorable to what is called old grass. But no change has yet taken place, in the management of the grass lands of the western counties; the farmers of the present day, do just as their fathers did before them; and probably one-fourth of the United Kingdom is now in old grass. Nowhere else is found a like extent of land, giving such a revenue. The rents or profits of these, is half and more of their gross product. The labor bestowed upon them is scarcely anything, the capital required is small, the chances of loss small also; the whole is nearly sure profit. Thus we see rents given of as much as forty dollars the acre.

Grass lands may be turned to account in three ways; for breeding stock, fattening, and the production of milk. Breeding is the least profitable of the three. To this, only the forest pastures are devoted. Fattening is looked upon as more lucrative and certain, where the pastures are of a better kind. But it is milk, which carries the day in England, and the cheese of these counties is highly esteemed.

For a few large estates to be met with in the western counties, there are a great many small ones, some of which are worked by their own proprietors. Indeed, in grass land districts, the nature of the prevailing occupation forbids its being carried on, on a large scale.

The western counties are Somerset, Gloucestershire, Monmouth, Hereford, Shropshire and Chester.

That portion of Somerset which borders on Devonshire, is mountainous and rugged, and contains one of the most desolate and uncultivated regions in the island—the granite moorland, called Exmoor Forest, rivaling Dartmoor in wildness. It is abandoned to a kind of half-wild sheep, and forms a refuge for the shyest kind of game, such as deer. As a set off to this, the vale of Taunton, bordering on Exmoor, is celebrated for its beauty and fertility, and all the country abounds in excellent pastures. Rents are very high, averaging $7 50 the acre, and rising to $15, and even $22 50 in the vale.

A county uniting so many advantages, so near to London, and with such outlets as Bath and Bristol for its produce, favored with that beautiful grass vegetation, and with such high rents, might be supposed to be in a very flourishing condition. The working classes suffer, however, and the manifest cause is over-population. This provokes undue competition for farms, and high rents, and too great division of lands. The population of the county has risen from 280,000 in 1801, to 444,000, while the land has not proportionably increased in richness. The only remedy for this untoward state of things, is either an increased production of land or a diminution of population.

Gloucestershire, which adjoins Somerset, divides itself into two parts, which are called the Cotswolds, or high grounds, and the vale or valleys of the Severn and Avon. These two agricultural districts require to be considered separately.

The Cotswolds form a series of table lands from 500 to 600 feet above the level of the sea, intersected by shallow valleys. The character of the soil is poor, and the climate cold. At one time they were almost entirely devoted to sheep pastures, but now, by means of the Norfolk rotation, and the purchase of extra manure, remarkable results have been obtained. The average rent now reaches $4 00 the acre. The farms are extensive, and farmers generally, well off. The cultivation begins with turnips, which are eaten off by sheep; then comes barley with grass seeds; the third year, clover; the fourth, wheat. The chief stock is sheep, which is the old breed of the country, by modern improvement made one of the best in England—rivaling the Dishley and Southdowns. The agriculture of the Cotswolds may be held up as a model for light and poor soils.

The vale of Gloucester has been endowed by nature more highly than the Cotswolds; but human industry has done less for it. The average rents reach $7 00. The land is almost entirely under grass, and it holds its ancient and deserved reputation for cheeses. Draining is not much resorted to, and the use of supplementary manures is not common. The small farmers are poor, and the proprietors not rich. No actual distress meets the eye. It seems as if comfort and happiness would never fail, in the charming and refreshing valleys of the Severn and the Avon, with their ever-green verdure, their luxuriant hedgerows, and thousands of grazing cattle; but the prosperity of the farmer does not correspond with the beauty of the vale.

The small county of Monmouth, situate between the sea and the mountains, presents a great variety of aspects; towards the west and north, we have the rugged wildness of the Alps; while the east and south, bordering on the Wye, is a perfect garden. Cultivation by oxen is still sometimes to be seen there; but this is becoming more rare in England, every day. On the coast, rents rise very high, but fall as they near the mountains.

Herefordshire and Shropshire call for but little remark. They are generally hilly, and in the latter are numerous potteries and iron mines. The chief agricultural occupation is the breeding of that fine race of white faced red cattle, known by the name of Hereford. These cattle, which the graziers of

the midland counties purchase for fattening, fatten more readily than any other breed, when put upon good pasture; and their beef is better than the Durham, but slower in forming.

Last, comes the county of Chester, the richest of the six western counties. The fame of the Cheshire cheese has reached thousands who have never tasted it. Half the county, which contains 700,000 acres, is under grass. The number of milch cows it maintains is above one hundred thousand, and each gives from 200 to 400 pounds of cheese, and 15 to 20 pounds of butter. Farming is much divided, and rents for grass lands are about $7 50 the acre.

The agricultural condition of the county is better and more prosperous than that of Gloucester and Somerset, owing probably to the neighborhood of the manufacturing districts, which offer immense outlets for its produce. Drainage is general, and the use of supplementary manures frequent.

The ancient and prosperous rural economy of this county has not prevented the spirit of innovation. Mr. Littledale's farm, on the Mersey, opposite Liverpool, is already famous. The cows on this farm are stabled throughout the year, which appears monstrous to the graziers of the neighborhood. In summer, they are fed on clover, Italian rye grass and green vetches; in winter, on corn, chopped hay, turnips and beet roots. It is asserted, that, by this means, eighty-three milch cows and fifteen working horses are kept upon eighty acres.

The Marquis of Westminster, a very extensive proprietor, and whose magnificent residence is the ornament of the county, is a great encourager of draining; he has tile works, which make a million of drain tiles in a year, and these he gives gratuitously to his farmers.

The Cheshire cheeses weigh from fifty to a hundred pounds each; the largest are considered the best; some smaller are made in the shape of pine-apples, but they are not so much appreciated. It takes four quarts of milk to produce one pound of cheese. The red color which distinguishes the Cheshire cheese is produced by *annotto*, and they are sometimes kept as much as three years, before they are sold for consumption. The cooler for the milk, the salting tub, the large and powerful presses, the well-kept utensils of wood and iron, the store filled with these huge cheeses—everything in these dairies wears an air of comfort. Among the productions of rural economy, cheese is the most interesting; it furnishes the mass of the population, in all countries, with a wholesome, palatable, and nourishing food; easily carried, and easily procured, cut in any quantity that may be needed, and requiring no preparation. It was the manufacture of cheese which enabled Holland and Switzerland, two of the noblest nations of modern Europe, to establish their independence; as it was the development of her cotton manufactures which carried England through the wars of the French revolution. There is more connexion than is usually supposed, between a nation's political history and its rural economy. The making of cheese passed from Holland into England, along with turnip cultivation; both were valuable gifts, perhaps the turnip the most so even.

The trade in cheese appears likely to be greatly extended, in the present day. The rise in price shows the increased demand. Nothing, however, is more simple than to imitate the most esteemed qualities of Dutch, Swiss and English cheese; it only requires a little attention, and a certain amount of capital. M.

## THE COUNTRY CHILD.

Child of the country! on the lawn
I see thee like the bounding fawn,
Blithe as the bird which tries its wing
The first time on the wings of Spring;
Bright as the sun when from the cloud
He comes as cocks are crowing loud;
Now running, shouting, 'mid sunbeams,
Now groping trouts in lucid streams,
Now spinning like a mill-wheel round,
Now hunting Echo's empty sound,
Now climbing up some old tall tree—
For climbing's sake—'tis sweet to thee
To sit where birds can sit alone,
Or share with thee thy venturous throne.

CUNNINGHAM.

## MILLET AS FODDER.

To secure a *variety* of fodder ought to be an object of the farmer, as well as to secure a large amount. Cattle will often eat a foddering of poor meadow hay with as much relish as they will the best timothy or clover; and this is evidence sufficient of the *necessity of variety*. But if, when we furnish variety, we can supply grasses of a nutritive character, that will at once gratify the appetite and contribute to the muscular system, then we introduce a fitness of things which will result in profit.

It seems now to be so much of a settled opinion among farmers, that we shall continue to have dry hot summers and short pasture feed, that all resort to some green fodder to make up the deficiency—and this resort has been principally to green Indian corn. Few have tried millet; but those who have, like it, and find it a profitable crop. Cut green and fed to stock, it is one of the best soiling crops we have—and made into hay, cattle eat it with as much avidity as they will our best grasses.

The mode of culture is simple and easy. The ground should be rich, or at least in good condition, finely pulverized, and sowed with seed about the first of June, using *eight quarts to the acre*; we have never used more than this amount, and found it amply sufficient. When sowed as late as the tenth of June, it is not necessary to cut it until after the rye and wheat crops are harvested, and the press of work is over. It is somewhat difficult to cure it, as it is a heavy, succulent plant. Cut it when the blossoms are just closing, and make it as clover hay is usually made. Hay caps may be used to great advantage in securing this crop, as it is necessary that it should be out two or three nights. A few square rods left to ripen will furnish an abundance of seed for another year.

☞ The post-office address of our friend N. P. MORRISON, "The Apple Man," is North Cambridge, Mass.

*For the New England Farmer.*

## COLTS.

FRIEND BROWN:—My regard for that noble animal, the horse, leads me to fully endorse the good practical hints of your correspondent, "M. H. C.," upon raising colts. But an important item has escaped his notice, namely,—cleanliness, as regards the pen, which has much to do with their feet, and consequently, their usefulness in after life.

The feet of a colt are supposed to be tender, spongy and susceptible, as compared with an old horse; now, suppose the colt-pen to be a winter's accumulation of filthy droppings, and never to be cleaned out till planting time—with an occasional littering of straw for decency's sake. Very soon, fermentation, heat, and almost fire, is generated in this hot-bed, so ignorantly, yet so kindly prepared for the colt. His feet, or body are in constant contact. If he lies down, he burns; if he stands, his feet are absorbing powerful ammonial gases—disease is taking hold; the young hoof begins to grow dry, hard and horny,—ring-bones begin to clasp the ankles—the joints stiffen, and by the time the foot is ready for the shoe, he is oftentimes crippled and of little value. The pungency of these gases, must be hurtful to the lungs as well as the feet. When children are born with corns on their toes, we shall believe colts are born with diseased feet—not till then. While a calf at five weeks old is worth but ten dollars, the promising colt may be valued at one hundred dollars—take good care of that colt.

Mr. Editor, I write from experience upon this matter, as many of your readers know. I spoiled two horses, and nearly the third one, by allowing them to stand, month after month, upon their own filth, well littered down to keep them clean. My motives were kind, but my practice was treacherously wrong; "Old Fanny" was rapidly crippling upon her hot bedding of manure, but was saved in time, by substituting a hard plank floor. A French writer put me right; he said, half the horses, old and young, are ruined by this practice. A moment's reflection convinces one. Now give the colt a hard clean floor, (and the old horses too.)—It expands the hoof, hardens and prepares it for after service. It would be about as convenient to get the butter out of a dog's throat, as to make some farmers believe this *hard floor* doctrine—yet it is indisputably true. H. POOR.

*Brooklyn, L. I., April, 1856.*

P. S. I take strong ground against Solomon Steele, Esq., of Derby Line, in his treatment of colts. He says, "I never allow a colt to stand upon a hard floor before he is two years old, as I believe the practice to be prejudicial to the formation of good feet." In the foregoing communication—written two weeks since—I had anticipated Mr. S. on this very point. But with all due deference, if his plan is to keep the colt bedded down, standing upon his droppings, I should expect a contracted instead of an expanded hoof, superinduced by standing upon heated offal, the young feet absorbing, drying, being naturally feverish. If the young colt never cringes when he gallops over the frozen ground, why keep his feet submerged and softened by his filth at the risk of inoculating him with disease?—Will not a hard floor better prepare and spread the young foot for hard roads and paving stones, than standing upon a soft substance? If an old horse can be crippled in one winter, how long would it take to ruin a colt under the same circumstances?

In conversation some years since with Mr. H., of Belfast, Maine, I named the circumstance of nearly ruining my third horse with this mistaken kindness. He instantly replied, "I always buy the best horses to be found, but they become diseased in the feet, soon after I get them; I keep them standing upon their manure, well bedded down, and now I am convinced of my error."

This is a subject of vast importance, and I hope it will be thoroughly discussed, by persons of experience and scientific attainments, as it regards the pathology and diseases of the horse. If it is malpractice that has made so many tender-footed horses, let us look to it.

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## REARING CALVES.

BY F. HOLBROOK.

Take the calf from its dam when a few days or a week old, according to the condition of the cow's bag, and learn it to drink new milk, warm from the cow, feeding it thus twice a day till four or six weeks old. Then begin quite gradually to lessen the quantity of new milk, adding, in place of that taken away, an equal measure of skimmed milk—the milk, previous to skimming, having stood about twelve hours, and, before it is given to the calf, having been warmed to the temperature of the new milk. So graduate the reduction of the new and the addition of the skimmed milk, that the latter shall constitute the entire mess for the calf when it arrives at the age of eight or nine weeks. When the calf is five or six weeks old, give it a few dry oats, say a moderate handful daily, and increase a little at a time, till at and after ten weeks of age the calf shall receive about a pint per day; also, at the age of five weeks, begin to feed a little nice fine hay. When the calf is ten weeks old, the milk it receives may be that which has stood longer than twelve hours before being skimmed; also at and after this age, the quantity of milk may be gradually lessened, and water substituted for the milk taken away, so that when the calf is twelve or fourteen weeks old, the milk shall be wholly withdrawn, and the calf shall receive oats, hay and water, or shall be turned off to good pasturage.

Thus managed, the calf will never know when it was weaned from milk—will have no season of repining and falling away in flesh, or remaining stationary in growth—will have no troublesome habit, after the time for weaning, of sucking cows that may chance to be in the pasture or yard with it, and will be quite as large, plump and symmetrical when a yearling, as though it had been reared by the more expensive mode of sucking a cow. During the winter preceding the period when the calf becomes a yearling, it should be fed on the best of fine hay, with one quart of dry oats, or six to eight quarts of mashed roots, daily. It is not a good practice to feed meal to young calves, either before or after weaning, the meal being too heating, injuring digestion and bringing on purging, and worse still, if fed freely, causing the calf to grow out of shape, picked and scrawny. It is also difficult to rear a nice well-shaped calf on gruel, because of the meal of which the gruel is in part made, and because the quality for forming well-developed bone and a well-shaped body, which milk eminently possesses, is too much lacking in the gruel.

## EXTRACTS AND REPLIES.

### THE CABBAGE CROP.

As I am about commencing the cultivation of cabbage I wish you to inform me which are the best varieties, both early and late, and what kind of manure is best for them, and how near the hills ought to be to have them do well. ALDEN HILL.

*Hudson, N. H., May 5*, 1856.

REMARKS.—The early York is generally considered the best for the first crop, and the large late Drumhead, for winter use. Good barn-yard manure is better than any thing else, as a fertilizer, but if you want a specific take superphosphate of lime, and apply in the hill. Eighteen to twenty-four inches apart, according to size of cabbage.

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### BROWN CORN—CALVES—SHEEP.

MR. BROWN:—I saw a notice in the last *Farmer*, April 5, of King Philip's corn, or brown corn. Can you tell me its origin? Did it come from one of the islands of the Winnipisiogee lake, N. H.? If not, and is as good as recommended by those gentlemen, every farmer should plant it. Where can it be procured, and at what price.?

### CALVES.

I saw in the *Farmer* about a year since a notice, or an article, on raising calves without suckling them on the mother. I have been trying to look it up, but have not succeeded; will you please republish it, as you can probably refer to it in your *Monthly Farmer*, or perhaps you or some of your numerous correspondents will give us the "modus operandi," afresh.

### SHEEP.

I notice that some of your correspondents recommend very highly the South Down sheep. Having sold my flock, I should like to obtain a few to commence with, of a kind that are peaceable, and will go in a pasture of about twenty acres. Are the South Downs peaceable? Where can they be obtained, and at what price? If some of the numerous readers of your excellent paper have this kind of sheep living near this section, should like to hear from them.

Will Mr. R. C. Fay, of Lynn, give, through the *Farmer*, his method of training sheep so that they will not jump low walls when there is better feed the other side? W. B. WEEKS.

*Gilford, April* 11, 1856.

REMARKS.—The corn you speak of is the Brown Corn of Winnipisiogee Lake. At the seed stores.

The article on rearing calves, was written by Mr. HOLBROOK, our Associate, and we give it in another column.

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### HOW SHALL I LAY BARN FLOORS?

MR. EDITOR:—I wish to know which is the best way to have a barn floor laid so as to have it cheap and tight? I mean the thrashing floor. Some lay two thicknesses, and some lay groove and tongue plank. I have seen plank laid down having the upper edges beveled so as to have the lower edges tight, thus allowing the dust and hay seed to fill the crack, making it tight. I should think that when thrashing the dirt would pass out. C.

### CORN FOR FODDER.

MR. EDITOR:—I would ask how corn stalks can best be raised for green fodder, whether in drills, or sowing the seed broadcast? If in drills, what should be the distance apart? What kind of seed is best, the southern or our northern corn?

Would it not be best for late fodder planted in June? A. D. M.

*Hyannis, Cape Cod*, 1856.

Remarks.—Sow southern corn, white or yellow, in drills 3½ feet apart. Begin immediately to sow a few drills, and sow occasionally till June.

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### GREEN CORN FODDER.

MR. EDITOR:—Please inform me of the best method of curing green corn when planted for fodder for winter use, and also of rearing young turkeys. IRA P. SMITH.

*Dublin, N. H.*, 1856.

REMARKS.—Cut the corn and let it lie one or two days, then tie it up in *very small* bundles and straddle it on the walls, or set common fence posts, insert poles, and put the corn on them, or on anything that will keep the bundle from the ground. Millet is a better fodder crop than corn.

Manage young turkeys much as chickens are. The important rule to be observed is—*keep them from getting wet until they are at least four weeks old.* Wet and cold are the great destroyers of young poultry.

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### MURIATE OF LIME ON WHEAT.

MR. EDITOR:—I would inquire through you or your excellent paper, if any of your correspondents have ever tried muriate of lime on wheat, if it has any fertilizing powers, and if it strengthens the straw like common lime, and how much per acre.

*Dresden, Me.*, 1856. SUBSCRIBER.

REMARKS.—We have used it on wheat with excellent results. From five to twenty barrels.

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### SUMMER WHEAT.

In 1855, I sowed a bushel of wheat the 26th of May, on one acre of ground that had been planted the year previous to corn, and harvested in the month of September, cleared and measured, 30 bushels. I had no more ground prepared for wheat, so I tried an experiment. I plowed one acre of grass land, with a side hill plow, spread on ten loads of green manure, harrowed thoroughly the same day it was plowed, and sowed one bushel of wheat. I harvested 18 bushels of good clean wheat. The ground was plowed and the grain sowed after the 26th of May. LEWIS HALL.

*Dover, N. H., April* 16, 1856.

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### TO DESTROY CATERPILLARS.

"C." recommends blowing off caterpillar nests with gunpowder—this has been practiced, but with great care, it has been found that the limbs are often injured.

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To G. H. H., *Beckett, Mass.*—The Eagle Hay Cutter is as good as any in use.

### POISON DOG-WOOD—RED ANT.

MR. EDITOR:—Do you know of any means to destroy *poison dog-wood?* We have tried everything we have heard of, and to no purpose.

Is there anything which will drive away the *red emmet?* A. A. E. MORSE.

*Methuen*, 1856.

REMARKS.—Can shed no light on the dog-wood, other than the common remedies of salt, fire, &c. To destroy the ants, dissolve a little brown sugar in a bowl, squeeze out a sponge in it, and lay the sponge on the shelf where the ants "most do congregate," and when there are a million collected in it, throw it into hot water, then the sugar water, and place upon the shelf again.

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### MICE AND FRUIT TREES.

MR. NOURSE:—I have noticed several instances of the depredations of mice upon fruit trees in different localities. Having had experience in this way several years ago, I will state how I treated my trees, and saved them, although they were fairly girdled all around. It may not be known to all, if any. I hoed the dirt up around the tree, above the part girdled, and then laid over it a quantity of green turf to keep it in place. The result was, that new roots sprung out from the wounded trunk, quite around it, and the tree recovered, and grew well. In a dry soil, a little plaster mixed with the dirt hoed up, would doubtless be of use in retaining the moisture.

CHANDLER DEAN.

*Bridgewater, April 21st*, 1856.

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### WIRE FENCE—GRAFTING THE GRAPE.

IRA BROWN, *New Haven, Vt.*—Mr. NESMITH, of Lowell, was the original manufacturer of wire fence, and, we think, had a branch in New York. We have made inquiry of persons who have long practiced grafting the grape, and they state that the process is in no way dissimilar to that of grafting the apple, and that they are usually successful.

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### HOW TO CURE THE HEAVES.

I wish to inquire through the columns of your paper if you know of any thing that will cure the heaves in a horse? W. S. W.

REMARKS.—Treat your horse well, in every way, neither working him too hard, nor subjecting him to sudden changes of temperature; then feed him morning and night on good clean timothy or red-top hay, cut, and wet with meal, and at noon four or five quarts of carrots, cut.

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### WHAT SHALL I DO WITH OLD BONES?

MR. EDITOR:—How shall I dispose of a lot of old bones so as to make them useful? T. J. B.

REMARKS.—If it is not convenient to dilute them with sulphuric acid, boil them in ley made of ashes until they can be pounded fine, or what is better, become of a pasty consistency.

### CULTURE OF PITCH PINES.

To JAMES J. SAWYER, *Putnam, Ct.*—Pitch pine seed may be obtained by *Nourse, Mason & Co.*, Boston, at $3,00 a pound. It would probably take two pounds to sow an acre. Plow shallow furrows, say four or five inches deep, and four feet apart, and make the hills the same distance, and plant much as you would corn, with three, four or five seeds in a hill. Cultivate and keep weeds down.

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### BEANS ON RYE LAND.

MR. EDITOR:—Will beans grow on new land that had rye on it last year? The soil is of a sandy loam. An answer to be depended on would be gladly received by me, and perhaps be a benefit to others. G. A. RAYMOND.

*Royalston*, 1856.

REMARKS.—We are a "practical farmer," friend Raymond, laboring daily, both with head and hands, in the fields. We have felled the forest and burnt it; got in the rye, and had fine crops; but we never followed that crop with beans. But if you manure and tend well, keeping off all sheep and woodchucks from the beans, we can see no possible reason why your labor should not be abundantly blessed with an ample crop, if the season should be favorable.

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### TO PREVENT LAMBS FROM BEING POISONED.

I have practiced for several years with feeding my lambs a little laurel before they leave the barn in the spring, and have never known them to taste it afterwards.

I would like to inquire if Whipple's scythes are made now the same as in use eight or ten years ago.

*East Charlemont, April* 24, 1856.

REMARKS.—Whipple's scythes are not manufactured now.

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### HEN MANURE.

I have quite a quantity of fowl manure which I am desirous of using in the most profitable way for vines. How shall I use it? T. R.

*Westminster West, Vt.*

REMARKS.—Pulverize and scatter it over the hills, and work it in well with the rake. It will make you glad, and the vines too, as far as they know how to be.

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### HEN MANURE.

MR. EDITOR:—How do you think is the best way of applying hen manure to corn and garden vegetables? This manure has been kept dry during the winter, and can be very easily pulverized.

REMARKS.—Apply it to the hill, well mixed with the earth.

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SUBSCRIBER, *South Hanson, Ms.*—Mix superphosphate of lime with your meadow muck for your crop of French turnips, and at the rate of 400 pounds an acre.

*For the New England Farmer.*

## A NEW SQUASH FOR WINTER AND SPRING USE.

MR. EDITOR:—I would recommend to Mr. E. G. Crowell, (and have sent him seed) the Hubbard squash, as the best variety for the table with which I am acquainted; best for quality, and best for keeping—always excepting the crookneck for a *keeper*. This squash is a hard shelled variety, the shell of pure specimens being nearly one-eighth of an inch in thickness. In size it is about one-third heavier than the pure marrow, weighing about nine lbs. when fully grown. Its color is greenish black, and when grown under very favorable circumstances, lead color. It is fine grained, of excellent flavor, very sweet and very "mealy." The only objections I have ever heard made against it, were on the part of some that it was too sweet, and by others, that it was too dry. A first-rate specimen tastes much like a boiled chestnut, and will make a very fair pie without sweetening. They are dryest late in the fall, and sweetest towards spring.

Respecting their keeping qualities, I have kept specimens in a cool dry place, till May. The last sound specimen of last season's crop, I brought to the table towards the close of April. In hardiness and productivenes they rank about with the marrow. I have never found it necessary, during the years we have raised them, to take extra precautions, beyond what are necessary for the perfection of ordinary squashes, giving them a *warm rich* soil. A farmer, who for the two past years has raised this variety for the market, informs me that he has sold it at double the price per lb. of the pure marrow, to customers who have once tested its quality.

Of its history, I know next to nothing, farther than that the seed was given to me by an aged female, about twelve years since, in remembrance of whom I named it, and that the party from whom she received it cannot tell from whence the seed came. I infer that it is of foreign origin, partly from the fact that the gentleman to whom I traced it is a resident of a sea-port town, and is largely connected with those who follow the seas.

As Mr. Crowell is total stranger to me, we may consider him an impartial judge; if, therefore, this variety of squash, when planted in warm rich land, is not up to the character I have here given, taking pure specimens as samples, and dating his test from about the middle of November, I hope he will qualify these statements in as public a manner as I now make them.

I have made an article more lengthy than I at first intended, but I consider a squash of superior quality and keeping as a rare and excellent table delicacy, and therefore, well worthy of having its good qualities set forth, to induce a more general cultivation.

J. J. H. G.

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IMPLEMENTS SOLD IN BOSTON.—The report of the Boston Board of Trade gives the following statistics: Ten years ago, the total value of Agricultural Tools produced in Massachusetts was only $650,723. Now there are in Boston alone five agricultural warehouses whose united sales in 1855 were two and a half million dollars. Among the articles sold, the curious reader will notice 36,950 plows, 93,000 shovels, 60,600 hoes, 60,000 forks, 138,600 rakes, 33,600 scythes, 12,000 axes, 6,750 wheelbarrows, 11,900 hay-cutters, 12,165 corn-shellers, 5,815 cultivators, 5,100 grain-cradles, 1,850 horse-rakes, &c., &c. One house alone sold 100 tons of clover seed, 10,000 bushels of Timothy seed, and 7,500 bushels of red-top.

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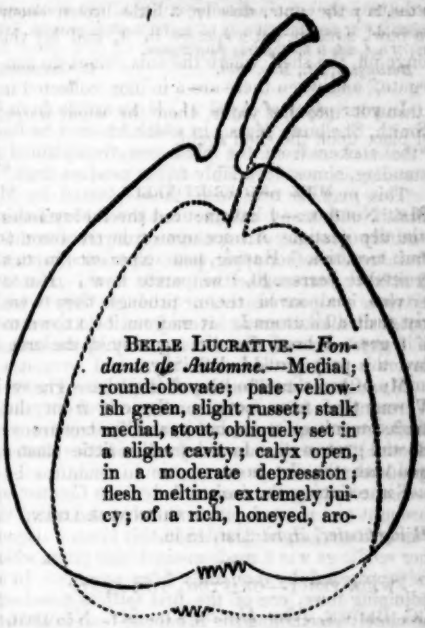
## BELLE LUCRATIVE AND WASHINGTON PEARS.



BELLE LUCRATIVE.—*Fondante de Automne.*—Medial; round-obovate; pale yellowish green, slight russet; stalk medial, stout, obliquely set in a slight cavity; calyx open, in a moderate depression; flesh melting, extremely juicy; of a rich, honeyed, aromatic flavor. Latter part of September. In a warm soil and favorable season, it has no superior, but it varies. Hardy, and good bearer. Does not blight nor crack. Poorer in moist soil. Not well tested in orchard culture. Foreign.

WASHINGTON.—*Dotted Outline.*—Small medial; oval-obovate; bright yellow, ruddy cheek, and red spots; stem medial, slender, slight cavity; shallow basin; flesh white, fine, melting, sweet, delicious and perfumed; uniformly good. September 10 to October. Rather small for market. Fine for the amateur, particularly further south. Small grower, good bearer. Beautiful fruit. Origin, Gen. Robertson's estate, Del.—*Cole's Fruit Book.*

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ONE ACRE TO SUPPORT A COW THROUGH THE YEAR!—In an article on the "Rural Economy of the British Isles," in another column, it is stated that on the farm of Mr. Littledale, on the river Mersey, opposite Liverpool, *eighty-three* milch cows and *fifteen* working horses are kept through the year on the product of eighty acres! This should be an example to American farmers. We believe that a cow may, and should be, well supported through the entire year, on the product of a single acre. Indeed, we have a few among us who already accomplish it. When this result is more generally attained, we shall hear less complaint of lim-

ted crops and small profits. The energies of the farm must first be concentrated upon a smaller space, and then the power increased of gradually raising the fertility of the whole.

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*For the New England Farmer.*

## SUCKER PLUM TREES.

MR. FARMER:—The following article was written a year since, in reply to an article by C. Smith, and accidentally mislaid. If you think it may be useful to plum-growers, print it; if not, use it for lighting your cigars.

*Burlington, Vt., May*, 1856. C. GOODRICH.

In your paper of April 21, is an article from C. Smith, Shelburn, Mass., in which he says he finds "that suckers from the plum tree, transplanted as standing, almost invariably fail to produce fruit."

This may be true with those planted by Mr. Smith, and many others; but the theory I think entirely wrong. All suckers or layers from any fruit tree, whether apple, pear, plum or grape, are fruitful or barren, like the parent stock. If a tree or vine is a poor bearer, or produces flowers without fruit, all suckers or layers from it do the same; if a great bearer, the same quality by suckers or layers is propagated indefinitely.

More than three-fourths of the plums grown in Vermont are from sprouts. Some bear very little fruit, sometimes none, but generally they are productive; when sprouts are from varieties that are good bearers, always so.

Some sixty years since a lady from Connecticut brought and planted pits from what she called the "Blue Gage," in her garden in this town. Among her seedlings was a medium-sized blue plum, which is propagated by thousands from sprouts. In an adjoining town, one of the first settlers raised one so closely resembling the Mirabelle both in growth of tree and fruit, that strangers call it such without any hesitation. The Lombard, or Bleecker's Scarlet, a well-known variety, was raised at Whitestown, N. Y. Judge Platt, of Plattsburgh, brought sprouts from the original tree, from which thousands of sprouts have been planted. From these varieties, and others I can name, trees from suckers or sprouts are uniformly great bearers.

As a plum is a rapid grower and early bearer, and as a sprout taken at two years old, tap-rooted, and planted as a standard or in the nursery, soon makes a bearing tree, and throws up no sprouts until they begin to decay, most people prefer them, so as to insure a constant succession with little trouble.

Any variety of plums may easily be had on their own roots by grafting large stocks near the ground, and after two years' growth plant them so as to have the bottom of the graft a foot below the surface; in three years after well rooted trees from the scions only may be had by cutting the graft from the original stock. I have the Washington plum three years bearing on its own roots, grown in this manner.

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POETRY SOBERED DOWN.—I'm thinking of the time, Kate, when sitting by thy side, and shelling beans, I gazed on thee and felt a wondrous pride. In silence leaned we o'er the pan, and neither spoke a word, but the rattling of the beans, Kate, was all the sound we heard. Thy auburn curls hung down, Kate, and kissed thy lily cheek; azure eyes half filled with tears bespoke a spirit meek. To be so charmed as I was then had ne'er before occurred, when the rattling of the beans, Kate, was all the sound I heard. I thought it was not wrong, Kate, so leaning o'er the dish, as you snatched up a lot of beans, I snatch'd a nectared kiss. And a sudden shower made my eyes blind, and I neither saw nor stirred, but the rattling of the beans, Kate, was all the sound I heard.

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*For the New England Farmer.*

## DAIRY PRODUCTS.

In a late number of the *Cultivator*, is a statement of the produce of a dairy of 14 cows, the last season, all of the common or native stock of the country. This was 2920 lbs. of butter that sold for 25 cts. per lb. Supposing the season for the making of butter to have been six months, or twenty-six weeks, which is as much as cows will average, this will be about 8 lbs. a week to each cow. This is decidedly a good product; I do not remember to have seen a better—taking so many cows together. If such be the product, on the best farm, in the best counties of the State of New York, how can more than this reasonably be expected, on the shallow soil and threadbare farms of New England? I know that single animals are here and there found, yielding twice this amount or more;—but this is generally on extraordinary feed, or with extraordinary care and attention. What particularly arrested my notice, on reading this account, was, that all the cows were of the *common or native* stock of the country. As far as I have seen, or can learn from others, *seven-eighths* of all the butter made or brought to our markets, is from stock of this character. Why then puff imported breeds as superior to our own? If they really are so, would not the *money-making, practical men* have discovered this fact? Of itself, it tells the story. P.

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*For the New England Farmer.*

## WILL GAS KILL TREES?

Let the following facts answer the inquiry:—Two years since, there stood in vigorous, growing condition, on the westerly side of Washington Street, in this town, a splendid elm tree, three feet in diameter, supposed to have been there seventy years, shading a circumference of three hundred feet. The gas pipe was taken up the street, in the centre to a point opposite the tree, and was heedlessly left, so insecure, that the gas when let on escaped and saturated the region all around. It was imbibed by the fibres of the tree, and in June following, its deleterious influences became unmistakably apparent. Every imaginable effort, by digging about, watering and fertilizing, was tried, with no good effect;—it languished, till the falling of the decayed branches admonished of the insecurity of its remaining. It now lies prostrate, with perfect evidence that it fell a victim to this subtle, invisible fluid. The fact is mentioned as an admonition to beware of the escape of gas—especially, in the region of *elms*. It does not have the same effect on horse chestnuts, the mountain ash, and other trees—but it is *death to the elm*. P.

*South Danvers, May* 1, 1856.

*For the New England Farmer.*

## ON CERTAIN BIRDS THAT MIGHT BE DOMESTICATED.

MR. EDITOR:—It was the opinion of Audubon, the great American ornithologist, who does not seem to have been actuated by visionary notions, that several species of our indigenous birds are susceptible of domestication, and might prove useful additions to our present domesticated stocks. I have taken some pains to collect his remarks on this subject, and to transcribe them, along with his description of the species which he recommends for such training.

I. *The Canada Goose—Anser Canadensis.*—This bird is already domesticated, and is too well known to require a description. Audubon says, "In the nests of those which I have had in a domesticated state, I have sometimes counted as many as eleven eggs, several of these, however, usually proving unproductive. The eggs measure, on an average, 3½ inches by 2½, are thick-shelled, rather smooth, and of a dull yellowish-green color. The period of incubation is 28 days. They never have more than one brood in a season, unless the eggs are broken or removed at an early period.

"The crossing of the Canada goose with the domestic species has proved as advantageous as that of the wild with the common tame turkey; the cross-breed being much larger than the original one, more easily raised and more speedily fattened. This process is at present carried on to a considerable extent in our Western and Eastern States, where the hybrids are regularly offered for sale during autumn and winter, and bring a higher price than either of the species from which they are derived."

II. *Wood-Duck—Anas Sponsa.*—This beautiful species ranges over the whole extent of the United States. It also occurs sparingly, during the breeding season, in Nova Scotia, but further north Audubon has not seen it. Every where in this immense tract he found it a constant resident, some spending the winter even in Massachusetts. It confines itself entirely to fresh water, preferring at all times the secluded retreats of ponds and creeks that occur so frequently in our woods.

"The flesh of this bird is excellent; its feathers are as good as those of any other species, and I feel well assured that with a few years of care, the wood-duck might be perfectly domesticated, when it could not fail to be as valuable as it is beautiful."

I have been informed that Mr. Webster once had several of these beautiful birds in a domesticated state on his farm in Marshfield.

III. *Eider Duck—Fuligula Molissima.*—"The Fuligula (says Audubon) are distinguished from all other ducks, that feed in fresh or salt water, by the comparative shortness of the neck, the greater expansion of their feet, the more depressed form of their body, and their power of diving to a considerable depth, in order to reach the beds on which their favorite shelly food abounds. Their flight differs from that of the tame ducks, being performed nearer the surface of the water. They differ, moreover, in their propensity to breed in communities, and often at a very small distance from each other, and they are more ready to abandon their females the moment incubation has commenced.

"The Eider is seldom seen further south, along our coast, than the city of New York. It breeds in many places on the coast, from Boston to Labrador where they are very abundant.

"It is by no means difficult to rear the young ones, provided proper care be taken of them; and they soon become quite gentle and attached to the place set apart for them. A fisherman of Eastport who carried eight or ten of them from Labrador, kept them several years in a yard close to the water of the bay, to which, after they were grown, they daily betook themselves, along with some common ducks, regularly returning on shore towards evening." He adds, "I have no doubt that if this valuable bird were domesticated, it would prove a great acquisition, both on account of its feathers and down, and its flesh as an article of food. I am persuaded that very little attention would be necessary to effect this object. When in captivity, it feeds on different kinds of grain and moistened corn meal; and its flesh becomes excellent."

IV. *Dusky Duck—Black Duck—Anas Obscura.*—This species which has already been domesticated in several places, and was quite common twenty years since in our farm-yards, in the vicinity of Boston, extends its migrations from the coast of Labrador to Texas, and breeds in both these countries. The young grow with remarkable rapidity, and like those of the Mullon, of which they seem to be only a variety, acquire the full beauty of their spring plumage, before the season of reproduction commences.

"The young of this species (says Audubon,) in the early part of autumn, afford delicious eating, in my opinion, very much superior, in this respect, to the more celebrated canvas-back duck. That this species should not before now have been brought into a state of perfect domestication, only indicates our reluctance to augment the comforts which have been so bountifully accorded by nature to the inhabitants of this happy country."

V. *Blue-winged Teal—Anas Discors.*—"The Blue-winged Teal is easily kept in captivity, and soon becomes very docile. In this State it feeds freely on coarse corn meal, and I have no doubt it could readily be domesticated, in which case, so snowy and tender is its flesh, that it would quickly put the merits of the widely celebrated canvas-back duck into the shade."

VI. *Gadwell Duck—Anas Strepera.*—This species is found along the whole of our Atlantic coast, from Maine to Texas. From the following note of Dr. Bachman, addressed to Audubon, we may judge how easily this fine species might be domesticated. Says Dr. B., "In the year 1812, I saw in Dutchess County, in the State of New York, at the house of a miller, a fine flock of ducks, to the number of at least thirty, which, from their peculiar appearance, struck me as different from any I had before seen among the different varieties of the tame duck. On inquiry I was informed, that three years before, a pair of these ducks had been captured in the mill-pond. They were kept in the poultry-yard, and it was said, were easily tamed. One joint of the wing was taken off to prevent their flying away. In the following spring they were suffered to go into the pond, and they returned daily to the house to be fed. They built their nest on the edge of the pond and reared a large brood. The young were perfectly reconciled to domestication, and made no attempts even at the migratory season to fly away, although their wings were perfect. In the following season they reared large broods. The family of the miller used them occasionally as food, and considered them equal in flavor to the common duck and mor

easily raised. The old males were more beautiful than any I have examined since; and as yet domestication had produced no variety in their plumage."

I should like to ascertain, through the pages of the *N. E. Farmer*, whether any of this stock to which Dr. Bachman refers are still in existence; and whether any serious efforts have been made in any part of this country to domesticate any other species not named in this communication. The number of species of the feathered tribe which have been reduced to perfect domestication is exceedingly small, and every new species thus rendered subservient to the use of man must be a valuable acquisition.

WILSON FLAGG.

## LAYERS.

By the term "layer," as applied by horticulturists, is meant simply a shoot, or surcle, which, while yet attached to, and constituting a portion of the tree from which it is contemplated to be taken, is bent down and covered with soil till it has radicated or taken root. It is then detached from the parent, and considered a distinct plant, inspirited by the identifying principle of life, and capable—under favorable circumstances—of perpetuating its kind.

The most favorable time for the performance of this operation, is just before the ascent of the sap, or when it is fairly up—that is, in the early spring, or mid-summer. The sprig or limb on being bent down, should be half separated by a clean cut on the under side, extending through the outer barks and the alburnum or sapwood, to facilitate the formation of the *nucleus* the first season. It may be proper here to observe, that by making the incision much deeper than this, the injury thereby caused to the circulating powers will necessarily prove detrimental, if not immediately fatal to the plant; the channel of the sap, which is the life-blood of the tree, being intermitted by the deep cut, or at least so much diminished in its capacity as not to yield a sufficient quantity of nutriment to the new plant. In some species, remarks an experienced horticulturist, and particularly in delicate sorts, it is not sufficient to cut a notch, merely, because, in that case, the descending sap, instead of throwing out granulated matter, in the upper side of the wound, would descend by the entire side of the shoot; therefore, besides a notch formed by cutting out a portion of bark and wood, the notched side is slit up at least an inch, separating it by a bit of twig or small splinter of stone or wood. The end of the layer which remains above the surface of the ground should be raised nearly upright.

Grape vines, when bent down in this manner, and covered with moist soil to the depth of three or our inches, take root immediately, and when divided from the parent stock, and set in good soil, make thrifty and vigorous vines. Some of the finest and most prolific bearers we have ever seen, were started in this way. The grape may be also propagated by cuttings. These should be selected from the matured wood of the last year's growth, and cut into lengths, having three buds each. In planting, set the cutting pointing to the south, and cover two of the buds only, leaving the third even with the surface of the soil. Irrigation will be necessary, if the weather is dry, or the soil destitute of moisture. If the soil is rich, a very small quantity of manure will be required, but it should be of the best kind. A compost made of the tendrils and leaves of the grape vine, mixed with plaster, is an excellent article for this purpose, and should be applied when practicable.

## HOW COAL WAS MADE.

Geology has proved that, at one period, there existed an enormously abundant land vegetation, the ruins or rubbish of which, carried into seas, and there sunk to the bottom, and afterwards covered over by sand and mud beds, became the substance which we now recognize as coal. This was a natural transaction of vast consequence to us, seeing how much utility we find in coal, both for warming our dwellings and for various manufactures, as well as the production of steam, by which so great a mechanical power is generated. It may naturally excite surprise that the vegetable remains should have so completely changed their apparent character, and become black. But this can be explained by chemistry; and part of the marvel becomes clear to the simplest understanding when we recall the familiar fact that damp hay, thrown closely into a heap, gives out heat, and becomes of a dark color.

When a vegetable mass is excluded from the air, and subjected to great pressure, a bituminous fermentation is produced, and the result is the mineral coal—which is of various characters, according as the mass has been originally intermingled with sand, clay, or other earthly impurities. On account of the change effected by mineralization, it is difficult to detect in coal the traces of a vegetable structure; but these can be made clear in all except the highly bituminous caking coal, by cutting or polishing it down into thin, transparent slices, when the microscope shows the fibres and cells very plainly.

From distinct isolated specimens found in the sand stones amidst the coal beds, we discovered the nature of the plants of this era. They are almost all of a simple cellular structure, and such as exist with us in small forms, (horse tails, club masses and fens,) but advanced to an enormous magnitude.—The species are all long since extinct. The vegetation generally is such as now grows in clusters of tropical islands; but it must have been the result of a high temperature obtained otherwise than that of the tropical regions now is, for the coal strata are now found in the temperate and even the polar regions.

The conclusion, therefore, to which most geologists have arrived is that the earth, originally an incadescent or highly heated mass, gradually cooled down, until, in the carboniferous period, it fostered a growth of terrestrial vegetation all over its surface, to which the existing jungles of the tropics are mere barrenness in comparison. The high and uniform temperature, combined with greater proportion of carbonic acid gas in the manufacture, could not only sustain a gigantic and prolific vegetation, but would also create dense vapors, showers and rain; and these again, gigantic rivers, periodical inundations, and deltas. Thus, all the conditions for extensive deposits of wood in estuaries would arise from this high temperature; and every circumstance connected with the coal measures points to such conditions.

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*For the New England Farmer.*

## ONION AND TOMATO vs. PEAR TREE.

It has been observed by some that Peruvian guano, in proper quantites, was an excellent manure for pear trees. Some have found that the gatherings at a blacksmith's shop, where the solid excrements of horses and oxen were gathered with the parings of hoofs, charcoal dust, iron filings, &c., made a compost most highly valuable for pear trees.

On the other hand, a variety of facts have come to my knowledge, which show the danger of planting onions, tomatoes, and such plants as require a very large amount of nitric acid, or, perhaps, I should say, of ammonia, in their formation, near pear trees.

Very valuable trees have been killed, where it was evident that it was to be attributed to growing tomatoes about the trees. Onions have sometimes done mischief in a similar way to pears.

I do not pretend to *know* why it is; but I *suppose* that it is because the pear must have nitric acid for its growth; and that tomatoes and onions draw it from the soil in the form of ammonia so severely, that they deprive the pear tree of its indispensable food. Has nobody wondered what ailed the pear trees, when they were "trying titles" with a crop of tomatoes or onions?

*Assonet, May,* 1856. A. G. COMINGS.

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*For the New England Farmer.*

## NATIVES LOOKING UP.

We learn that Mr. H., of South Danvers, has recently sold his cow, of which mention has been made in your paper, for the sum of $150, to a gentleman, who intends to raise her offspring. This is as it should be, and as it was when the venerable farmer of Quincy purchased the famous Oakes cow for a like purpose. If we would be true to ourselves, no reasonable opportunity of improving our own stock should be permitted to pass without use. We are not unmindful that sales of foreign stock are often made at sums greatly in advance of this; but we cannot well understand, why nineteen quarts per day, (beer measure,) is not worth as much from a first rate native cow, as from any other. We have entire confidence this quantity was given the last season, by this animal, on grass feed alone, and that her butter products have been of the very best quality.

*May,* 1856.

## POPULAR FALLACIES.

It is not true that sugar candies are of themselves injurious to the teeth or the health of those who use them; so far from it, they are less injurious than any of the ordinary forms of food, when employed in moderation.

Any scientific dentist will tell you, that the parts of teeth most liable to decay are those which afford lodgment to particles of food; such particles being decomposed by moisture and heat, give out an acid, which will corrode steel as well as teeth; but pure sugar, and pure candies are wholly dissolved, there is no remnant to be decomposed to yield this destructive acid; we remember now no item of food which is so perfectly dissolved in the mouth, as sugar and candy. When visiting the sugar plantations of Cuba, the attention was constantly arrested by the apparently white and solid teeth of the negroes who superintended the operation of cane grinding; they drank the cane-juices like water, there was no restraint as to its use, and the little urchins playing about, would chew the sugar-yielding cane by the hour. It is much the same in Louisiana, where the shining faces and broad grins of the blacks are equally indicative of exuberant health and "splendid teeth."

How does it happen, then, that there should be "the prevalent belief" that sugar and sugar-candy destroy the teeth and undermine the health? Perhaps the most correct reply is *tradition*, the father of a progeny of errors in theory and practice; of errors in doctrine and example, "too tedious to mention."

One of the common faults of the times is an indisposition to investigate on the part of the masses. We take too much for granted. A very common answer to a demand for a reason for a time-honored custom is, *"Why, I have heard it all my life. Don't every body say so?"*

It would be a strange contradiction in the nature of things, if sugar and candy in moderation should be hurtful to the human body in any way, for sugar is a constituent of every article of food we can name; there is not a vegetable out of which it cannot be made, not a ripe fruit in our orchards which does not yield it in large proportions, and it is the main constituent of that "milk" which is provided for the young of animals and men all over the world. Perhaps the child has never lived, which did not love sweet things beyond all others; it is an instinct, a passion, not less universal than the love of water. A very little child can be hired to do for a bit of sugar, what nothing else would. The reason of this is, that without sugar, no child could possibly live, it would freeze to death; it is the sugar in its food which keeps it warm, and warmth is the first necessity for a child.

But to use this information intelligently and profitably, it must be remembered that sugar is an artificial product, is a concentration, and that, if used in much larger proportions than would be found in our ordinary food, as provided by the beneficent Father of us all, we will suffer injury. We should never forget that the immoderate use of anything is destructive to human health and life, if persevered in. The best general rules to be observed are two:

1. Use concentrated sweets at meal times only.
1. Use them occasionally, and in moderation.

*Hall's Journal of Health.*

## THE BALDWIN APPLE.

The persons who met on Monday last to take initiatory steps in relation to placing a monument on the spot where the first Baldwin Apple tree stood, had a general discussion of the subject, and appointed the following gentlemen as a committee to take further steps in the matter, viz:

MARSHALL P. WILDER, Dorchester,
JAMES F. BALDWIN, Boston,
ASA G. SHELDON, Wilmington,
SILAS BROWN, Wilmington,
JOSEPH REYNOLDS, Concord,
SIMON BROWN, Concord,
THOMAS D. BOND, Wilmington,
} *Committee.*

The chairman, Col. WILDER, is requested to call another meeting, at such time and place as he may think proper. SIMON BROWN, *Secretary.*

## NEW EXPERIMENTS IN CHURNING CREAM.

[Our readers are aware that we do not usually attach great importance to "theories," (as the term is commonly understood,) until they are tested by practical trial. We insert the following for the experiments it details in connection with the suggestions of theory, and invite attention to the subject.]

I have something amusing to tell you, to set you to thinking of a new theory of churning, and should you approve of the theory perhaps your lady readers would be gratified at the prospect of getting the long-looked-for, perfect churn. The thought occurred to me that to rupture the globules of cream perfectly and expeditiously, it should be done by a force-pump, ejecting a stream of 3-16 or 1-4 inch with great velocity, against a hard substance, or into itself. Much to the amusement of my family for trying to do that which thousands have failed doing, I procured a pint syringe and a quart of cream, and commenced squirting it into itself; when lo, the butter developed itself shortly. I then borrowed a little force-pump, and again succeeded. I then had a tin pump, 2½ inches diameter, 11 inches long, made, and gave it a good trial. I found the cream would soon break, but that it required a common churn to finish it by aggregating the butter as a gatherer. I have concluded, my plan is to provide for all churns, a breaker, thus performing much the most important labor, and greater production. My theory is to rupture the globules by sufficient concussion in once passing the cream through, by giving it sufficient force, ejecting the stream of cream against a hard substance, or into itself. I thus get all the butter in a much shorter time.

I propose to have got up a breaker by itself separately, or to be added to present churns; if made separately, have a simple force-pump attached to a board or frame, under which place the crock of cream to be broken; pass the cream from the pump into the churn.

Our present churns are good gatherers, but all churns to be perfect, must have a breaker to do the main work. The present mode of churning is a good deal like taking a stick to crack a pile of walnuts; one nut protecting the others from concussion, renders it tedious and imperfect. The present dashers produce insufficient concussion to expeditiously and perfectly break the globules; hence less product of butter, and constant disaffection with all churns. EDGAR CONKLIN.

*Country Gentleman.*

*For the New England Farmer.*

## A HINT TO FARMERS.

Spring, lovely and charming spring, has come again. All nature about us is rapidly throwing off its wintry garb, and putting on its beautiful garments, all fresh and new, of Spring. How apt an illustration of the seasons of life, death and the resurrection of man! What more noble employment than that of the thoughtful and intelligent tiller of the soil? God's great book of instruction, to all who study its pages—so full of wonder, interest, and all that is ennobling to the soul of man. He indeed must be a dull scholar who cannot look from nature up to nature's God, and behold in his works an allwise, intelligent, great first cause. Farmer, this great volume of intelligence is constantly open before you; you behold it every step you take over your broad acres, the wisdom and beneficence of a merciful Creator; and he who does not see this and let its teachings pervade his soul, and uplift his heart in gratitude to that Creator, is little better, than the cattle upon his many hills. Dull and stupid must be the mind which is brought in constant contact with the works of God, and not see in them the beauties and wisdom of an eternal and omnipotent power. This instruction book, the farmer has ever before him. Aside from this, how cheering the promise of his word to you—seed time and harvest shall continue till the end of time. The former and the latter rain, God will give in its season. Thank God, things are not now-a-days as they were wont to be. There is an inquiring intelligence among the farmers, such as those tillers of the soil in by-gone days little thought or dreamed of. There is no branch of human industry that has made greater or more rapid improvements than that of farming, in the broadest acceptation of that term. We have reason to believe that this will continue to be the case. Who cannot see that there is a different class of minds engaged in this business than formerly. To be successful now, the head must work as well as the hands, and the more they go together, I believe, the greater the success.

Heretofore, the farmers have used the hands too much, and their heads not enough; but let them work intelligently together, and the result is greater, and the farm, as well as the farmer, will constantly improve. All past experience proves this to be true. For one, I thank the agricultural press for what they have done, and are still doing in this great matter. Farmers, I want you to appreciate these things more, and give them your helping mind and hand.

*April*, 1856. NORFOLK.

AN EXCELLENT REMEDY FOR HORSES THAT PULL ON THE HALTER.—Put on a strong harness with good breeching, and a long strong halter, and bring that down through the collar; fasten him to something he cannot move. He will make but few attempts before he gives it up, and in this way he can be broke of it.—*Country Gentleman.*

*For the New England Farmer.*

## LETTER FROM MR. FRENCH.

DRAWING WATER—HYBRID PLANTS—BREEDING LIVE STOCK.

MY DEAR BROWN:—Charles Lamb once said, that what people call "easy writing" is generally very hard reading. Whether this be so or not, it is my prevailing sentiment, just at present, that I shall not put a great deal of hard work into any kind of writing, till after planting.

If there is any reader of the *Farmer* who has been shut up the past four weeks in a court-room, with a farm or two awaiting his personal attention, he will sympathize with us, who feel as if the "time to plant" had precedence, just now, over the privilege of talking or writing about it.

The weekly *Farmer* of to-day suggests some topics, of which a few words may, perhaps, be "fitly spoken,' without the exercise of very hard writing, or, I trust, of very hard reading.

### WATER FOR THE FARM.

You speak of a "Water Lifter," of which an engraving is expected for the *Farmer*, to be worked by the animal that drinks. It is easy to conceive that such a machine might be arranged, to be operated by the weight of the ox or cow standing on a platform at the trough. A man who ever saw your chicken feeder, which so delighted the members of Congress at Washington, when you were nothing but librarian of the House of Representatives, and had not arrived at the dignity of principal editor of the *New England Farmer*—a man who saw the door of the corn bin fly open by the weight of the astonished biddy as she was peering round for a hole through which to extract the grain, which she knew was shut up there, never will be surprised to see a cow pump all the water she wants to drink, and a little besides to fill up the can, if she does not afford quite milk enough!

Speaking of animals drawing water, of course reminds us of the water ram, which, by the way, is one of the most beautiful and practically successful applications of science to everyday life that has ever been discovered. Everybody knows, or ought to know, that this machine, at a very small cost, some eight or ten dollars for the ram itself, wherever a fall of four or five feet, with water enough to supply an inch and a half pipe, can be obtained, will throw a certain proportion, say a seventh or tenth of the water, to a reservoir at any desired height above the head of water. I recently saw one in operation at Manchester, N. H., which had worked as regularly as the beating of the human heart, through the whole winter, without cessation for a minute, supplying a household with water which was first thrown by the ram into a reservoir in the attic.

Where no fall can be obtained and the water must be pumped, windmills have been used, with various success.

The great obstacle to their use has been, that with sufficient surface of wings to furnish power in a moderate breeze, the machinery is broken by sudden tempests. To obviate this difficulty, various inventions have been tried, so that the sails or wings may be filled by the wind itself when it increases beyond a safe point.

So far as I have seen, the objection to this power is its expense. The wind is cheap enough, but it has its old trick of blowing "where it listeth," and a somewhat complicated arrangement is requisite to "raise the wind" when it does not feel much like working, and to fetter its pinions, when it gets high and is determined on a blow. However, all this about windmills, is it not already written in the pages of the *New England Farmer*?

The best way in the world to have water is, to find a spring high enough, put in an aqueduct of logs or something else that will not give the family the lead paralysis, and "as the boy said of the molasses" in the Knick Knacks, "let her run." Water is always willing to run down hill, and has decided objections to the contrary course. My own barn is supplied by a lead pipe from a spring, and my house by iron pumps, in both stories, which draw from a well about ten feet deep.

In conclusion, let me say to all who are building, that the less machinery is used in conveying water, especially in this freezing climate, the less care and vexation is in store for you.

### MIXING OF PLANTS.

This number contains an article on the "mixing of potatoes," which I do not propose to criticise, but merely use as a text.

There are some principles that seem to be settled about this matter of *Hybridizing*, or *Cross Breeding*. In the blossoms of most plants the seed or fruit is the offspring of the *stamens* and *pistil*, which may be considered the male and female, growing in the same flower usually, though sometimes in different flowers of the same plant, and sometimes in the flowers borne by different plants or trees. When the female flower is impregnated by the dust or pollen from a male flower of a different species, the product is a hybrid or cross of the two species, partaking more or less of each, *the tendency being towards that species which is most permanent.* Hence plants which are nearly allied will mix in this way, if planted near together. Corn, melons, squashes and other annuals will mix the first year, as every body knows; but nobody ever knew potatoes to mix the first year, or any other year, unless the balls or seeds are planted, becaus the potato is not the fruit or the seed, but in the nature of a root. By planting the balls or true seed of the potato, where different kinds have been grown together, a great variety will be obtained. The seeds of the apple or pear or peach seldom produce their like kind, because their blossoms are

fertilized by different varieties. It is not uncommon to hear persons recommend some variety of peach as always producing from the stone the same variety.

There may possibly be varieties of the peach that will not mix with others, but it is very doubtful. Probably a stone from a peach tree, or a seed from an apple tree, that is so far from all other varieties as not to be reached by the pollen of another, will be found to produce its like, though it would not be contrary to analogies if the product of a mixed parentage should propagate a race of somewhat mixed qualities. I leave this question for the scientific members of the Massachusetts Horticultural Society, who understand it much better than I do.

This brings me to another topic of the same number—

THE BREEDING OF LIVE STOCK.

Some person, whose name is nameless, sends you a note, headed, "Natives looking up," which furnishes an excuse, if one is needed, for a word on this subject.

Some gentleman has paid $150, it seems, for a native cow, intending to raise her offspring. If this cow is really an accidental cow, a cow that has no known parentage, the gentleman will probably share the ill success of others who have tried, so many times, the same experiment.

It requires something more than one cow to perpetuate a stock of cattle, and if the old way of "ordinary generation," as the catechism has it, is to be resorted to, the milking qualities of this animal's posterity—according to the generally receved opinion — will depend more on "the company she keeps," than on herself. The tendency of hybrids, both vegetable and animal, is *towards the species most permanently established.* You might about as reasonably expect the stone of the largest peach on a tree, or the seed from the largest apple, to reproduce its like, as to expect this remarkable cow, compounded of accidental qualities, in unknown quantities, to produce a great milking stock. From a Devon bull, she will produce, generally, a Devon calf. From a less firmly established blood, or from a bull of like accidental parentage, she will produce a stock of average qualities, probably with their unknown ancestors, ringstreaked, speckled or otherwise, as chance, or some unfathomed law of Nature, may order. There is no objection to any gentleman paying a high price for a native cow, or to his attempting to establish a new and native breed, but there are serious objections to the dissemination of the idea, that these ill begotten, accidental great milkers are sure, or even likely to produce stock of this same quality.

The man who buys such an animal, admits the very *principle* claimed by those who breed blood stock. He thinks his cow will transmit an *accidental* quality to her posterity, a quality which she did not acquire through any fixed quality of blood in her ancestors, while the breeders of the Ayrshires or Jerseys contend that it is more reasonable to expect that a fixed and uniform quality, uncontaminated by doubtful blood, will be contained in the progeny.

With no special interest in any particular stock, I feel bound to enter a protest against the idea, which often appears in the correspondence of the *Farmer*, that native stock, that is, stock of unknown, and of course, mixed blood, is as valuable for breeding, as that of established character.

*Exeter, N. H., May 17th.*

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*For the New England Farmer.*

## CATERPILLARS.

FRIEND BROWN: — The season for caterpillars has now arrived, and as usual, various receipts are published in our agricultural journals to destroy them. The best and most efficient way to destroy them I know of, is to rub the nest with spirits of turpentine, which can be easily done by tying a woollen rag to the end of a pole. Dip in the liquid, and just rub the nest; being very penetrating, the whole will be at once saturated, and the effect will be sure death to the inmates. Going over an orchard twice is usually sufficient for the season.— The nests frequently escape detection the first time, but one application is sure cure for the evil.

Yours truly, W. G. LEWIS.

*Framingham, May 15.*

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*For the New England Farmer*

## HOW TO CURE HAMS.

I have, for nearly thirty years, practiced curing my bacon in a pickle, made as strong with good salt as could be made, and then reducing it just one-half, by adding the same quantity of fresh water. This gives it the right seasoning without saltpetre, which, in my estimation, rather injures than benefits it. Sugar or spices may be added to suit the taste, or ideas of those who are to use the bacon; or the hams can be used without smoke. A similar pickle I find to be the best for beef used through the winter, and when the weather becomes warm, take it up, and give the requisite quantity o. salt for summer preservation and use.

RUFUS MCINTIRE.

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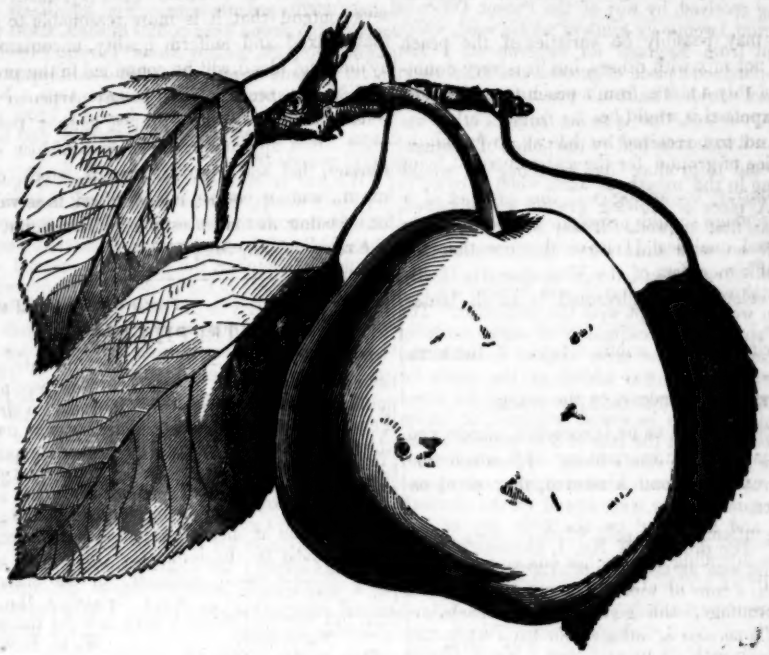
A LUXURY FOR ANIMALS.—It is related of Rev. Sidney Smith, that when on his farm, each cow and calf, and horse and pig, were in turn visited, and fed and patted, and all seemed to welcome him; he cared for their comforts as he cared for the comforts of every living being around him. He used to say, "I am for all cheap luxuries, even for animals; now all animals have a passion for scratching their back-bones; they break down your gates and palings to effect this. Look! there is my universal scratcher, a sharp-edged pole, resting on a high and low post, adapted to every height from a horse to a lamb. Even the Edinburgh Reviewer can take his turn. You have no idea how popular it is. I have not had a gate broken since I put it up. I have it in all my fields."



## THE OLD ST. MICHAEL PEAR, OR WHITE DOYENNE.

There are few pears bearing so many names as this old, well known and excellent variety. In the region about Boston it is called the St. Michael; in New York, the Virgalieu; in Philadelphia, the Butter Pear; the English give it several names—among them that of Snow Pear and Pine Pear, as well as St. Michael. This confusion in names shows that the pear is extensively cultivated, and ranked among the best.

In his *American Fruit Culturist*, THOMAS says that it fails in many localities near Boston, but through inland New York and in most of the Western States, it is unsurpassed in its excellent qualities of hardy growth, fair fruit, delicious flavor, and great productiveness; many trees yielding ten or fifteen bushels of perfect fruit in a single season.

It is an old French variety, and was first brought into notice by the Dean of some religious corporation, and as we are not particularly anxious to immortalize the musty saints of the cloisters or cathedrals, perhaps we had better let the old Dean have the credit of so good an act as bringing such a pear into notice, and call it the *White* (doy-en-nay) *Doyenne.*

We have known this pear from our youth, and do not hesitate to say that if it can be ripened without cracking, it is one of the best in our extended list. COLE gives the following description:—

Rather large; obovate; clear pale yellow, with small dots; a red cheek full in the sun; stalk an inch long, stout, in a small cavity; calyx small, in a shallow, finely plaited basin; flesh white, fine texture, melting, very buttery, of a rich, high, delicious flavor. Oct. and into Nov. Many regard this pear as a standard of excellence; many others prefer the Seckel. It is perfectly hardy in tree and fruit, and first-rate in quality in the Middle and Western States, in Western New York, and in the region of Baltimore; but it generally blasts and cracks in New England, on the sea-coast, yet it still flourishes in the interior. Where uncertain, it does better on the quince.

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GIRDLED TREES.—The *Lowell Citizen and News* says that "tin placed about young apple trees will prevent the mice from girdling them. The material used is the tin of refuse cans, and costs one cent for each tree."

We saw an orchard in April where tin was used, and not a tree was injured—while many trees in the immediate neighborhood were ruined.

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SEEDS.—We are under obligations to the Hon. Robert B. Hall, Chauncey L. Knapp, and the Commissioner of Patents, for various packages of seeds.

*For the New England Farmer.*

## TURNIP CULTURE.

Having received, by way of the Patent Office at Washington, twenty-six kinds of turnip seed, which were sent from England for experiment, I last summer obtained a piece of ground, and tried them as well as I could. The result was more satisfactory than I expected it would be.

The seed was received so late as to forbid the best choice of ground for the experiment, it being some time in the month of June when it came to hand. A piece of mowing ground was obtained, which was first mowed. It was in such condition that half an acre did not yield more than 200 pounds of hay.

After taking off the hay, it was broken up, and not again worked except with the cultivator. The manure applied was estimated at eight cords of stable manure to the acre, worked in with the cultivator. To this was added, in the drills for ruta-bagas, and broadcast on the surface for those kinds which were to be sowed broadcast, of superphosphate of lime at the rate of 300 pounds to the acre. The soil was a sandy loam. There were four kinds of ruta-bagas, each kind occupying one square rod of ground. They were sowed on the eleventh of July, and harvested on the fifth day of November. The product of No. 1, Skirving's Swedish Turnip, was at the rate of 720 bushels to the acre, with 4 tons of tops. The product of No. 2, River's Stubble Swedish Turnip, 640 bushels, and 4 tons of tops. No 3, Laing's Swedish Turnip, gave 640 bushels, with 3½ tons of tops. No. 4, Green-topped Swedish Turnips, the rate of 880 bushels, with 3¼ tons of tops.

The amount of each kind was ascertained, and the product of one square rod multiplied by the number of square rods in an acre. The tops were weighed immediately after they were trimmed, that is, while they remained green.

Two of these kinds have proved to be extra fine for culinary uses, No. 2 and No. 4. At this time May 10th, they are as nice as any body could ask for.

The other twenty-two kinds were sowed broadcast, on the 24th day of July, and were harvested, on the 16th day of November. The product of these were at the following rates per acre, by the same way of computation above spoken of. No. 5, Ball's Hybrid Turnip, 885 bushels and 8000 pounds of tops. No. 6, Green-topped Six-weeks Turnip, 560 bushels, 4480 pounds tops. No. 7, Snow-ball Turnip, 600 bushels, 6360 pounds tops. No 8, Strap-leaved Turnip, 700 bushels, 4800 tops. No. 9, Small Yellow Malta, 480 bushels, 4800 pounds tops. No. 10, White Globe or Norfolk White Turnip, 660 bushels, 8000 pounds tops. No. 11, Green Round or Norfolk Green Turnip, 440 bushels, 7360 pounds tops. No. 12, Green Globe, or Green Norfolk Turnip, 620 bushels, 8320 pounds tops. No. 13, Golden Ball Turnip, 440 bushels, 6400 pounds tops. No. 14 Red Globe or Norfolk Red Turnip, 500 bushels, 980 pounds tops. No. 15, White Tankard or Decanter Turnip, 400 bushels, 5760 pounds tops. No. 16, Green Tankard or Decanter Turnip, 400 bushels, 5640 pounds tops. No. 17, Yellow Tankard, or Decanter Turnip, 400 bushels, 5440 pounds tops. No. 18, Red Tankard or Decanter Turnip, 400 bushels, 6240 pounds tops. No. 19, Green-topped Scotch Turnip, 260 bushels, 6400 pounds tops. No. 20, Purple-topped Scotch Turnip, 240 bushels, 7040 pounds tops. No. 21, Skirving's Purple-topped Scotch Turnip, 400 bushels, 5920 pounds tops. No. 22, Early Stone or Stubble Stone Turnip, 320 bushels, 6400 pounds tops. No. 23, Yellow Stone Turnip, 240 bushels 8000 pounds tops. No. 24, Red-topped Stone Turnip, 640 bushels, 7040 pounds tops. No. 25, White Dutch Turnip, 480 bushels, 7200 pounds tops. No. 26, Yellow Dutch Turnip, 240 bushels, 4000 pounds tops.

We had so severe a drought from August 1st, for eight weeks, that no rain at any time wet anything below the mere surface of the ground. At the middle of September, and from that until near the first of October, the prospect appeared almost hopeless. Some of the kinds never recovered from the effect, scarcely in the least degree; and there is no reason to suppose that any of the kinds were near equal in product to what they would have been under more favorable circumstances.

Several of the late-sowed kind proved to be very fine for culinary purposes. Among these, the Small Yellow Malta, No. 9, for early use, and the Yellow Tankard, No. 17, for later use, appeared to claim first mark. The Green-topped Six-weeks Turnip, No. 6, was very early.

I have for a good while been thinking of preparing a few articles for the *New England Farmer* on *Turnip Culture*; but ill-health, and a doubt whether I could rank them worthy of the space they would occupy, has prevented. I have devoted considerable attention to the subject for a number of years, before leaving the Granite State.

*Assonet, Mass.*, 1856. A. G. COMINGS.

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## SAVE YOUR PLUMS NOW.

We begin to think this can be done without Mr. Matthews, if not with him. We were yesterday on the grounds of one of our best horticulturists, and saw the application, and have some faith in its success. Our friend thinks there is no chance for mistake about its efficacy. He informed us that he applied it last year, after the curculio had begun its ravages, and that it not only saved those which were unstung, but many of the plums on which the insect had left his card, healed up and ripened well. The liquid enters the opened wound and destroys the egg. This is the only remedy he has ever found to avail against this slippery enemy of one of our best fruits. His recipe is—

One peck of unslaked lime,
Six pounds of salt,
One barrel of water.

The mixture is to be applied with a common garden syringe. If one application is not sufficient repeat it. A single application answered with him last year.

No time is to be lost, as the young plums are already set, and the enemy has begun to show himself. If a syringe is not to be had, sprinkle on the liquid in some other way. The mixture is cheap and easily applied, and every man who has a plum tree should try it. This is the most philosophical remedy we have yet seen suggested, and we commend it with more confidence than most new things to the notice of fruit-growers. If it answers our expectations, it will be worth millions to the country. Plums can be grown on loose, sandy loams as well as on clay soils, to which they have hitherto been

mainly confined, on account of the ravages of this insect. The cultivation of this fruit may be indefinitely extended, and we may make our own dried plums, instead of importing them from France.

Those who have Mr. Matthews's remedy in keeping should hurry up their secret, or they will be too late for the fair.—*American Agriculturist.*

## THE CURCULIO.

The curculio was the corn weevil of the Romans, and caused them considerable trouble before it emigrated to this country. It still does a good deal of mischief, thinking, we suppose, that it has as good a patent, to live, multiply, and replenish, as any other folks, and it does not hesitate to avail itself of such means as are best adapted to promote the ends it has in view. So it lights on the fair plum, the beautiful cherry, apricot or apple, makes a little crescent shaped incision, and deposits a delicate, tiny, white egg in it, where it is surrounded by the juices of the tender fruit. Then with some of its peculiar varnish—an exact recipe for which we believe is not to be found in the books—it seals over the wound it has made, so that it is proof against sun, wind and rain. But not knowing what accident may befal this particular egg, like a prudent skipper, who always has "an anchor to windward," it goes to another, and another, and so on, *ad infinitum*, to other plums, and peaches, and apples, in its eagerness to keep the race good, until one-half, sometimes more, of the young fruit has in it the element of its own destruction. The egg produces a little white grub, which feeds its way gradually to the centre of the fruit, destroys its vitality, and it falls to the earth, where the grub is transformed into a winged insect, the perfect curculio, who will be just as eager to lay eggs, and propagate its kind, as its mother was before it.

Here they are now, in their different stages of growth, and one of them in the very act of obeying the all-prevailing instinct of its nature.

1. Curculio in the perfect or beetle state, as large as life.
2. Its assumed form, when disturbed, or shaken from the tree.
3. Larva, or worm, as found in the fallen fruit.
4. Pupa, or chrysalis form, in which it lies in the ground, and the last stage before the perfect state.

On the figure of a plum are the crescent-shaped marks as made by the insect.

Well, they are not made in vain, did not choose their own instincts, and if they destroy what we desire to preserve, we must devise some way to prevent it, or suffer the loss. To say how to avert it, is the object of this writing.

Various methods are resorted to, which partially prevent the mischief, but are mostly either too expensive or inconvenient. Some have covered very fine plum trees entirely with gauze, others smoke the limbs with tobacco smoke, or that of some other drug. We have known the fruit of large trees saved by boring the tree, inserting a plug, and by striking it with a large mallet, jar the insects down upon cloths spread under the tree. But this mode is tedious, as it must be done several times in each day. We have practiced a remedy for several years, and never have failed in it, when it has been faithfully attended to. It is this: as soon as the fruit becomes of the size of a common pea, shake fine ashes, plaster, or lime over it, from some convenient thing. We use a "corn popper," fastened on a pole of any desired length, and prefer air-slaked lime to put in it. Sift it upon the fruit twice a week, after a shower, or when it is covered with dew.

Now, gentlemen, and ladies too, if you will send to the *Farmer* office *one-tenth* of the fruit that may be saved by this cheap and simple remedy, we shall be content with our share of the blessings of Pomona the coming season.

*For the New England Farmer.*

## MIXING OF POTATOES.

Mr. Editor:—Will potatoes mix, or will they not, when different varieties are planted in close proximity, is a question which will find many able supporters on either side.

What we have seen and proved by actual experiment, regardless or not of what we have read or heard, we are very apt to believe, for "seeing is believing,"—a belief founded upon the strongest possible terms in our own minds. Actuated by such a belief founded upon practical experiment, do I offer a few remarks upon this important subject, hoping thereby to erase from the minds of many the erroneous idea they have long entertained, that potoes never will mix in color or quality, however near different varieties may be planted to each other.

I am not prepared at present to believe that potatoes will mix in *quality*; that a Peach-blow planted in the spring, beside, or even in the hill with a Carter, will in the fall, when dug, prove to have lost its individuality and brought forth good nice Carters, both in quality, size and color. This to me, would be believing what I think never was known or heard of, and would at once set aside that established law of nature, "like produces like." Now I have all due respect to this long established law, but I am ofttimes led to think it almost contains an inconsistency; perhaps it does not mean that "like will produce like" in color and form, but only in quality; yet upon this point I am led to doubt, for why should I not, when in the spring I take my different varieties of corn, and plant eight or ten rows of one kind, and the same of another, and so on, until I have my field all planted, and in the harvest, I find two, three, four, or perhaps more different varieties in color, size, and quality, all upon one single ear. That this is the case where different varieties are planted in close proximity, every practical farmer and intelligent reader of your paper knows.

Then shall we say "like produces like," or, shall we say, "like produces like" in quality, but not in size or color. We can say, and perhaps that is the true meaning, corn will produce in a good season corn, and that potatoes will produce potatoes, but that they will produce the same in form or color, we cannot say, when different varieties are planted together. That some varieties of potatoes will never mix in any way, I as yet believe, but that there are many that will, I know, and if a reader of your paper doubts my authority in this statement, I can show him a bushel or more of Jenny Lind or California potatoes, raised from seed planted last spring of light red color, but which were planted close beside a field of Carters, and when dug last fall, were as perfectly white in color as any Carters I ever raised. In shape and size they are like the original seed, and the quality remains the same, and in my opinion ever would, if planted beside different varieties forever. That they will mix in color as well as Rohans, Pink-eyes, Early Blues, &c., &c., and diminish in size, by being planted all varieties within one hill or in the same field, I fully believe; but that they will change or mix in quality I am yet to be convinced. JOSEPH BLAKE.

*Ashfield*, 1856.

## THE HAPPY LOT.

O, happy, blest of all his race,
The man who tills the soil;
Whose spring and harvest hopes in place,
Come sweet'ning every toil.
Were mine a field of waving grain,
A mead with "cattle sprinkled o'er;"
A wood, to tempt the warbling train;
Before my house a grassy plain,
Descending to some shore;

In joyous ease I'd spend my life,
In spite of Fortune's frown;
Nor e'er like Lot's unduteous wife,
Regret the noisy town.
Farewell, the counting-house and store,
Amid the city's din;
My eyes and ears be vexed no more,
With, "*Lend me, Sir*," without the door,
And "*Sir, your note*," within.

Lord help the man who spends his days
In borrowing and lending;
Dogged here and there a hundred ways;
Yet times are never mending.
Be mine the wagon, plow and spade,
'Tis man's first destination.
With health and plenty more than paid,
I'd take my cheer, and shake my head
At fools of rank and station. PINDAR HAYLOFT.

IVY.—By a little management you may have your vy to cling perfectly. Whenever a branch grows without attaching itself to the wall, cut off the loose part close to a leaf beneath which the attachment is perfect. Continue this process till the wall is covered, and ever afterwards cut away all hanging branches, or by the force of the wind they will detach others beside themselves. When the ends of growing ivy once lose their hold, they are never still sufficiently long to be able to attach themselves; but, by cutting away to the point of contact, they are enabled to proceed to the new growth, and thus hold fast. Cut off the hanging branches as soon as seen; for, by swinging about in the wind, the injury is constantly increasing.

*For the New England Farmer.*

## PURCHASING FRUIT TREES.

MR. EDITOR:—Why buy bad fruit trees? I have bought and set within the last nine years, about 400 apples, 175 pear, as well as cherry, plum, and other fruit trees; and experience has taught me to keep away in future from buying any trees, than such as are of the very best quality. Indeed, no farmer can afford to set and nurse a bad fruit tree. I bought, nine years ago this time, 60 trees, mostly Baldwins, of Dea. Leland, of Sherborn, paying him 75 cents each, and these trees were set on about one acre in a lot of three acres, and are now as fine trees as I have seen anywhere in my travels. When seven years old, they produced twenty barrels of as fine apples as can be found of the kind.

The next spring—eight years ago—I bought 40 apple trees from a nursery thirty miles south, and being somewhat particular about the quality, it was agreed that I have my choice out of a large lot of trees, at 31 cents each. These were carefully taken up, brought home, and set on the same lot with the others, and have always been cared for in a like manner. Yet they are so far behind the Sherborn trees, that I would gladly pay five dollars each, to make them equal to the first named, and I doubt not there will be twenty dollars difference in ten years more. Two years after this, I went back to Sherborn, and bought 100 more like the first named, and a few more have been bought of Col. Wilder, of Dorchester; his charge was one dollar each, and altogether the cheapest tree I have ever bought, never having lost a single tree, and all that he has sold me at that price will prove cheaper in the end than the Sherborn trees if given to me, or the 31 cent trees, if the seller had given me ten dollars each to take them for nothing. Now this is my experience and judgment.

The land on which these trees stand is good, and of the same quality—all having been thoroughly under-trenched and drained.

I have bought within the last four years 150 pear trees of Marshall P. Wilder, of Dorchester, paying him one dollar each, for standards (that is, pear on pear roots,) and never lost a single one by re-setting, or otherwise, and many of them gave fruit the second year. All of them had fine, healthy roots and trunks, and have made as much wood as could be desired in the time. Four years ago, a man came on from Long Island with a few hundred quite as good looking pear trees as I ever saw at any nursery, and after selling in Worcester and vicinity at 50 cents each, brought to me a bundle of 25 trees, and insisted that I should set them at the side of my trees bought the year before of Col. Wilder, and after much importunity, I permitted him to leave them, which he did, and at this time, the second year after, I have but four alive, after bestowing quite as much labor on them as the others. I this spring ordered enough from Col. Wilder at $1 each, to take their places; and I have this morning just finished pulling up the Long Island trees and setting those that I have entire confidence in. Now, Mr. Editor, whilst I feel sore in mind, body and estate, particularly about this last transaction in pear trees, I consider it my duty and privilege to warn all my brother farmers never to buy trees of a travelling agent at any price, as they generally are the gleanings of a badly managed nursery; besides, if you have any reputation,

it is generally used pretty freely by these travelling agents to induce others to buy, saying that Mr. Such-an-one bought freely of him. The same can safely be said of those who are out selling superphosphate, and guano, and other fertilizers.

Respectfully yours, HARVEY DODGE.

*Sutton, May 9, 1856.*

## AGRICULTURAL ADDRESS.

We have received an Address delivered before the *Windham County Agricultural Society at Brooklyn, Conn.*, by the REV. ALEXANDER H. VINTON, of Boston. We have often noticed Mr. Vinton in the agricultural meetings at the State House, and are happy now to find his light shining in a more public manner. His address is written in a pleasant, attractive style, and abounds with excellent suggestions. The farmer is indebted, considerably, to the physician for aid in agricultural progress, but more to the clergy than to any other class. They have the opportunity and the intelligence—where they have the taste—to work in agricultural matters more scientifically than most of us are enabled to do. With the pen always at hand, also, they note the results they gain and are able to give them intelligibly to the world. For want of space we are obliged to content ourselves with the following extracts from this excellent address:

"Agriculture has exacted tribute of mineralogy, and has sometimes saved money by knowing the difference between limestone and silex. Natural philosophy has paid her tribute to agriculture, in the shape of water-rams, and drains, and horse-powers. Botany has taught her the principles and laws of vegetable life, and how to cross her breeds or keep them pure. Entomology has lit its candle and introduced her to the domestic manners and habits of weevils, borers and caterpillars. It is not quite time yet to say how much agriculture has been aided by astronomy; but if it shall be determined satisfactorily that pork shrinks in the pot, or timber takes on decay according to the time of the moon, then so much at least of astronomy will be necessary to the farmer as to teach him when that luminary is in her growth or wane.

* * * * *

"We have not time to extend the detail of agricultural thrift, but there is one indispensable particular, without which no farmer can thrive as he ought; without which, one most important department of his farm will be crippled and haggard; without which, if his purse grows full, his soul grows lean; without which, he will bring disgrace on agriculture, and Nature will be revenged on his unnatural state, in refusing Heaven's last, best gift to man, a loving, prudent, first-rate wife. His hired help may fail him, but he has this helpmeet for him that never fails—helping his hands, helping his head, helping his heart, and from being a mere farmer makes him a whole man. Helping his heart, I said—and this reminds me that the view we take of agriculture is too often confined to the mere question of dollars and cents.

"But it is a grievous pity if this God-given employment should be capable of nothing higher and better. The moral value of agriculture, its use in refining the sentiments and tastes, is, alas! almost universally ignored. With so much to improve the more spiritual part of our nature, how often do we see the farmer destitute of all sense of the beautiful, and despising all those improvements of nature which heighten her attractions and feed the soul with associations of loveliness, that, mingling with her toil, turn drudgery to delight, and add pleasure to profit. If the farm were made as tasteful as a pleasure-ground, and the dwelling adorned as a grotto, the farmer's toil would be compensated by cheerfulness; his weary body be beguiled by his pleasant mind, and above all, the children would not grow up to hate their father's employment, using their first freedom to try a precarious substitute, and leaving the hearth and homestead to the stranger and foreigner."

## AGRICULTURAL PRODUCTS.

D. J. Browne, Esq., Superintendent of the Agricultural Division of the Patent Office, has prepared a table of the agricultural products of the United States for 1855, and affixes a valuation to the several products. However near he may approximate the amount, we think he has overshot the mark in the valuation. For instance, he values the whole crop of corn at 60 cents per bushel, while 40 cents would be a good price. Other items are as far wide of the mark. We publish the table showing the amounts, and leave our readers to figure out the value for themselves.

VEGETABLE PRODUCTS.

| | | |
|---|---|---|
| Indian Corn | 600,000,000 | bus. |
| Wheat | 165,000,000 | " |
| Rye | 14,000,000 | " |
| Barley | 6,600,000 | " |
| Oats | 170,000,000 | " |
| Buckwheat | 10,000,000 | " |
| Potatoes (all sorts) | 110,000,000 | " |
| Flaxseed | 58,000 | " |
| Beans and peas | 9,500,000 | " |
| Clover and grass seed | 1,000,000 | " |
| Rice | 250,000,000 | lbs. |
| Sugar (cane) | 505,000,000 | " |
| Sugar (maple) | 34,000,000 | " |
| Molasses | 14,000,000 | gals. |
| Wine | 2,500,000 | " |
| Hops | 3,500,000 | lbs. |
| Tobacco | 190,000,000 | " |
| Cotton | 1,700,000,000 | " |
| Hemp | 34,500 | " |
| Flax | 800,000 | " |
| Hay and fodder | 16,800,000 | tons. |

DOMESTIC ANIMALS AND ANIMAL PRODUCTS.

| | | |
|---|---|---|
| Horned cattle | 21,000,000 | head. |
| Horses, asses and mules | 5,100,000 | " |
| Sheep | 23,500,000 | " |
| Swine | 32,000,000 | " |
| Butter and cheese | 500,000,000 | lbs. |
| Milk | 1,000,000,000 | gals. |
| Wool | 60,000,000 | lbs. |
| Beeswax and honey | 16,000,000 | " |
| Silk cocoons | 6,000 | " |

It must not be imagined that though the country has produced so abundantly the last year, that the whole product will be realized. The loss by wastage, rotting, accidents, disease, &c., takes off a large percentage from this. The total estimated value of vegetable products, is $1,355,887,500—animal products, &c., $1,352,005,000.

GARDENING FOR THE SOUTH.—This is the title of a new work, setting forth the best method of cul-

tivating all the trees, vegetables and flowers common to good gardens, and flourishing in the southern States. It is well arranged, the descriptions are clear and practical, and it cannot fail to prove of essential service to the gardener of the South. The author says, that, with them, "gardening in all its departments is generally deemed the peculiar province of the ladies, and that if Mr. Downing had lived at the South, he would never have asked 'What is the reason American ladies do not love to work in their gardens?'" We are glad to learn this fact, and hope their Northern sisters will "make a note on't." The author has done his country a good service. By WILLIAM N. WHITE, of Athens, Ga. Published by Saxton & Co., N. Y., and for sale at Saxton's Agricultural Depot, 81 Washington St., Boston.

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*For the New England Farmer.*

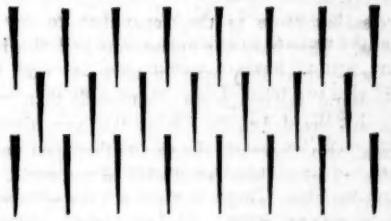
## IMPROVING PASTURE LANDS.

BY PROF. J. A. NASH.

A writer in the *Country Gentleman*, nameless and placeless, so far as the communication shows, has started a thought on the above subject, which has, at least the merit of novelty.

His remarks relate to side-hill lands, which are apparently underlaid by a crust or pan, preventing the water sinking, and causing it to flow laterally near the surface, and occasionally to ooze out at the surface after heavy rains. He describes these lands as producing a little fine, furzy grass, a few hardhacks, and here and there a bunch of brakes, enough in all to "keep poorly," (he might almost have said to starve,) one cow to five acres. He thinks that lands bearing this description, are generally infested with poisonous ingredients, often some salt of iron; and that underdraining is the appropriate remedy; he suggests that the drainage water might, in many cases, be used for the purpose of irrigation; although it would issue from the ground full of poisonous matters, hurtful in their first effect to the grass to be flowed, yet that these poisonous matters are soon neutralized in the sun and air; and that the water, containing, as it would, other ingredients, favorable to vegetation, would be beneficial. He suggests the idea of running drains from the upper edge of the pasture, short distances, down the slope, making them deep at the upper end, but less so as you proceed downward, running out at the surface at the lower end; then commencing other drains, midway between the lower extremities of these, and then in like manner others, and so on to the lower side of the pasture, or the foot of the hill, as the case might be.

The drains, if his suggestions were tried, might best be of pebble stones, if such were plenty, but otherwise of tiles, except at the lower ends, where they would be exposed to frost, and where some other material would need to be used. The process would not be necessarily expensive, as such drains could be excavated mostly by the plow, and the earth returned by the scraper. The suggestion would seem to be of some importance, as applied to such kind of land. But the writer adds, that, inasmuch as the benefit of draining some lands is yet but little appreciated in this country, and will hardly be gone into by many, a tolerable substitute for draining might be found in subsoiling; that if we should commence on the upper border of such a pasture, and run furrows downward, short distances, say six rods, with the subsoil plow, making them deep at the upper end and shallower till they run out, placing them as in the marks below, the effect would be, on this side-hill land, at once to drain the soil, and to irrigate the lower portions of the pasture; and he supposes both would be beneficial, and that the operation would not be expensive, even if repeated every few years. The subsoil plow, it will be understood, would not break the turf, but only make a cut through it, stirring and loosening the subsoil below, so as to afford a passage for the water with whatever poisonous substances were dissolved in it, to the surface. He would have these cuts with the subsoil plow, some 10 or 12 feet apart, and arranged as below, the size of the line indicating the depth of the cut in different parts.



This last suggestion, about thus subsoiling some side hill pastures, could, of course, apply to but a small proportion of our pasture lands, because most of them are of a different character, but it may be important in relating to those to which it is applicable. I am aware that it will be objected, that subsoiling is useless, unless preceded by underdraining,—for it will be said that the gashes made by the subsoil plow fill up shortly, if the water be not first taken out. The objection is unanswerable so far as relates to flat lands; but would not these short cuts with the subsoil plow, down a side-hill, relieve the ground of water, first over the cut, and then laterally half-way to the next cuts? Perhaps it would be better if the cuts with the subsoil plow should be nearer each other, say half a rod apart, and not more than three or four rods in length. Will not some one who has cold, sour side-hill pasture, try the experiment when the spring opens, and at some future time report the result. It could be tried on a single acre. If the cuts were made eight feet from each other, and three rods in length, there would be on an acre about one hundred of the cuts, and their aggregate length would be three hundred rods. With a stout pair of cattle and a good driver, the work could be done in one hour; and although it would be but an experiment founded, it is confessed, upon *theory*, and on theory alone, yet there can scarcely be a doubt that the effect would be good,—it would be, to tap the land, to draw out the sour, poisonous water, to neutralize its hurtful solutions, or to change them into ingredients favorable to vegetation, and then to use the water so cured and improved by exposure to sun and air, for the purpose of irrigation.

The theory is—and the reader must judge of its soundness—that the water in such a side-hill, instead of sinking away into the earth, creeps along

down the slope, below the surface, and above an impervious stratum below, dissolving various hurtful ingredients, and becoming worse and worse, the further it goes; whereas, if you could cause it to flow alternately above and below the surface, it would become surcharged with those poisonous matters when below the surface, would deposite them where they would be neutralized, sink again, and again become charged with the same poisonous matters, and again deposite them, and so on, acting as a carrier, carrying out load after load of these poisonous matters, and depositing them where, under the influence of sun and air, they would undergo a change which would render them favorable, or at least, not hurtful, to vegetation.

## ROOTS! ROOTS! ROOTS!

Farmers, cultivate more roots. Do not delay preparations for this important crop. You can soon increase your ability to feed double the amount of stock you now feed; this will double the manure, and the manure will double your future crops. An acre, with 20 loads of manure, and well cultivated, will give two tons of hay, as an average. Call it worth $40; it will cost $5 to harvest it. Another acre, with the same amount of manure, will give 800 bushels of carrots, as an average. Cost of cultivation, $40. They are worth 25 cts. a bushel for stock, making $200. Deduct cost of cultivation, $40, and we have $160 to offset against the $35, value of the hay. This is one way—and a sure one—to increase the profits of the farm—let us try it.

## INGENUITY OF BIRDS.

Thrushes feed very much on snails, looking for them in mossy banks. Having frequently observed some broken snail-shells near two projecting pebbles on a gravel walk, which had a hollow between them, I endeavored to discover the occasion of their being brought to that situation. At last, I saw a thrush fly to the spot with a snail-shell in his mouth, which he placed between the two stones, and hammered at it with his beak till he had broken it, and was then able to feed on its contents. The bird must have discovered that he could not apply his beak with sufficient force to break the shell when it was rolling about, and he therefore found out and made use of a spot which would keep the shell in one position. When the lapwing wants to procure food, it seeks for a worm's cast, and stamps the ground by the side of it with its feet, somewhat in the same manner as I have often done when a boy, in order to procure worms for fishing. After doing this for a short time, the bird waits for the issue of the worm from its hole, who alarmed at the shaking of the ground, endeavors to make its escape, when it is immediately seized, and becomes the prey of the ingenious bird. The lapwing also frequents the haunts of moles. These animals, when in pursuit of worms, on which they feed, frighten them, and the worm in attempting to escape, comes to the surface of the ground, where it is seized by the lapwing. The same mode of alarming his prey has been related of the gull.—*The Cincinnatus.*

*For the New England Farmer.*

## SOMETHING ABOUT TREES AND HEDGES.

Mr. Editor:—There seems to be a growing conviction among all classes of men who have bestowed any attention upon the subject, that some other method of enclosing fields besides those in general use must ere long be adopted, and that the hedge is to form an important part of this substitution.

Many experiments which have been tried with trees and shrubs of foreign growth, have for various reasons partly or wholly failed; but in this, as in most other new things, a want of knowledge combined with a want of patience, deserves the credit of frustrating a large share of these enterprises. To me, it seems highly important that our State and County Societies should take up and investigate the matter, so far, at least, as may be necessary in order to relieve individual enterprise of much of the embarrassment under which it now labors, and thus prepare the way by the diffusion of knowledge, for such changes in the art of fencing as necessity may demand. I am not aware that any of our societies have as yet taken this matter in hand.

Much may be done to relieve this growing want of our country, if those farmers who are beginning to regard it with apprehension, would now take the pains to sow a small patch, such as every farmer can easily spare, with the seeds of those trees which are known to be of rapid growth, and which when sufficiently matured, afford material for all the requisites of the farm. This need not, under ordinary circumstances be regarded as a mere experiment; the economy of such an attempt has been too thoroughly tested, and your readers have become too well acquainted with the results to doubt its practicability.

Much has been said in your valuable paper which is calculated to attach interest to the subject, and I hope that those who have made successful experiments will continue to afford us the light of their example. I would like to call the attention of your readers, at this time, to the Tenth Legislative Agricultural Meeting of last year, as reported in your monthly journal, page 194. There was much said at that meeting that is pertinent to our subject.

Can you tell us, Mr. Editor, what kind of English oak Mr. Fay referred to on page 194? I would like also to know the price of acorns from the English oak. I will mention but one other tree referred to in that report, at present, for I can not take a ramble through the woods now, and that is the Scotch larch. This is used, as I am informed, considerably in England for hedges, especially to fence against cattle. Its very rapid growth, even on poor, worn-out land, together with its adaptation to various uses as an almost indestructible material, would doubtless render it an important acquisition for general use. Are these trees sufficiently hardy to endure the extremes of our climate? Most trees of rapid growth are liable to injury from frost, especially when young. Again, who has got any of the larch to sell? If they can be imported, as Mr. Fay says they can, I should like a thousand or two of them. C. Blakeley.

*Bristol, Ct., May,* 1856.

Remarks.—Mr. Fay will oblige more than our correspondent by answering his inquiries.

CARBON.—Carbon constitutes about one-half of the organic combustible parts of plants and vegetables. The remainder of the organic matter is oxygen, hydrogen and nitrogen, which become solid in vegetation.

## BOYS' DEPARTMENT.

### BROTHERS QUARRELING.

A SCOTCH NURSERY BALLAD.

DAVIE.

"Father, settle Sandy!
He's making mou's at me;
He's aye plague, plaguing,
And winna let me be;
And anye he looks so simple like
Whene'er he thinks he's seen,
But just as soon's you're out of sight,
He's making mou's again.

"Father, settle Sandy!
He's crying names to me,
He's aye tig, tigging,
And winna let me be;
But O, sae sly, he hauds his tongue
Whene'er he kens ye're near,
And says't again below his breath,
That none but he can hear."

SANDY.

"Father, settle Davie!
It's him that winna gree,
He's aye jeer, jeering,
And lays the blame on me;
I daurna speak, I daurna look,
I daurna move a limb,
For, if I gi'e a wee bit laugh,
He says I laugh at him."

FATHER.

"O, learn to be loving, and kindly agree,
At home all as happy as brothers should be,
Ere distance may part you or death may divide,
And leave you to sigh o'er a lonely fireside.

"The sweet look of kindness, the peace-speaking tongue,
So pleasant and lovely in old or in young,
Will win the affections of all that you see,
And make you still dearer to mother and me.

"But, O! if divided by distance or death,
How sore it would grieve you, till life's latest breath,
That anger or discord should ever have been,
Or aught but affection two brothers between!"

### CHILDREN MUST DO IT THEMSELVES.

If I were to reduce to a single maxim the concentrated wisdom of the world, on the subject of practical education, I should but enunciate a proposition, which I think will command your assent, but which I fear, is not incorporated as it should be, into the practice of schools and families. That principle is, that in educating the young, you serve them most effectually, not by what you do for them, but by what you teach them to do themselves. This is the secret of all educational development. We talk of self-education as if it were an anomaly. In one sense of the word, all education is obtained simply by the exertion of our own minds. And is this self-education? What does education mean? Not *in*ducation.

The popular opinion seems to be that education is putting something *into* the mind of a child by exercising merely its power of receptivity—its memory. I say nay, *nay*, NAY. The great principle on which a child should be educated, is not that of reception, but rather that of action, and it will ever remain uneducated, in the highest sense, so long as its higher mental powers remain inert. One may lead a horse to water, but twenty cannot make him drink—and yet if he does not drink, he dies. So a boy or girl may be supplied with all the materials of education, and yet remain uneducated to the end of time. Moses struck the rock, and the waters gushed forth. When it is proposed to apply a force to inorganic matter, the force not being within itself, must be applied externally, or it must change its internal constitution like chemical action. But when we pass to the living soul, we find the organizing, energizing force within, and all our skill must be directed to the development of this, of a true moral and spiritual life.—A. POTTER, D.D., *in Conn. School Journal.*

## LADIES' DEPARTMENT.

### DOMESTIC RECIPES.

GINGER BEER.—Two gallons of ginger beer may be made as follows: Put two gallons of cold water into a pot upon the fire; add to it two ounces of good ginger bruised, and two pounds of white or brown sugar. Let all this come to the boil, and continue boiling for half an hour. Then skim the liquor, and pour it into a jar or tub, along with one sliced lemon, and half an ounce of cream of tartar. When nearly cold, put in a teacupful of yeast to cause the liquor to work. The beer is now made; and after it has worked for two days, strain it and bottle it for use. Tie the corks down firmly.

MOULDINESS.—Fruit jellies may be preserved from mouldiness, by covering the surface one-fourth of an inch deep with finely pulverized loaf sugar. Thus protected, they will keep in good condition for years.

RICE CAKES.—Boil rice until it is soft, and while warm make it into cakes or flat balls. Dip these balls into a beaten egg, and then roll them into Indian meal till thoroughly coated. This done, fry them in lard, which is better than butter for this purpose. Serve them with sauce, or with butter or cream and sugar.

A GOOD WAY OF COOKING ONIONS.—It is a good plan to boil onions in milk and water; it diminishes the strong taste of that vegetable. It is an excellent way of serving up onions, to chop them after they are boiled, and put them in a stew-pan, with a little milk, butter, salt and pepper, and let them stew about fifteen minutes. This gives them a fine flavor, and they can be served up very hot.

WASHING SILVER WARE.—It seems that housekeepers who wash their silver ware with soap and water, as the common practice is, do not know what they are about. The proprietor of one of the oldest silver establishments in the city of Philadelphia, says that "housekeepers ruin their silver by washing it in soap suds; it makes it look like pewter. Never put a particle of soap about your silver; then it will retain its original lustre. When it wants polish take a piece of soft leather and whiting, and rub it hard."